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CASE REPORT

A background image showing a small boat on a beach with mountains in the distance. The text 'CASE REPORT' is overlaid in a large, blue, serif font.

A BLEND OF CONVENTIONAL AND MINIMALLY-INVASIVE TECHNIQUE TO REDEFINE PRECISION IN FULL MOUTH REHABILITATION - A CASE REPORT.

A SAMAD TANWAR

The demand for aesthetic treatments in dentistry has increased progressively over the years and has resulted in the development of dental materials that meet both aesthetic and functional requirements of patients redefining precision in aesthetic restoration. Bonded restorations are state of the art for modern and minimally invasive aesthetic dentistry. It is now possible to work with restorations that can bond to the tooth surface with minimal amount of tooth preparations. Hence, in this case report a blend of conventional and minimally-invasive technique was followed to rehabilitate a young patient with hypoplastic dentition redefining precision to optimal aesthetic outcome.

MAXILLARY HYBRID PROSTHESIS- A CASE REPORT

AAMIR BASHIR, ADIL FAYAZ

GOVT. DENTAL COLLEGE, SRINAGAR

Many people have life-long problems with their dentures, such as difficulties with speaking and eating, loose denture, and sore mouth syndrome. The evolution of dental implant supported prosthesis gives these patients normal healthy life for their functional and esthetic advantages. This case report presents the step-wise fabrication of maxillary implant supported hybrid prosthesis by using heat cured acrylic material in teeth construction to rehabilitate a maxillary complete denture wearer patient. A total of seven implants were placed in the maxillary arch followed by fabrication of a heat cured acrylic hybrid denture.

AN ALTERNATIVE APPROACH FOR THE MANAGEMENT OF FLABBY RIDGES

AANCHAL TANEJA, SONIKA MISHRA

INDERPRASTHA DENTAL COLLEGE AND HOSPITAL, MEERUT

AN ALTERNATIVE APPROACH FOR THE MANAGEMENT OF FLABBY RIDGES. Flabby ridges poses a prosthodontic challenge for the achievement of stable and retentive dental prosthesis. It is a superficial area of mobile soft tissues affecting the maxillary or mandibular ridges. It develops when the alveolar bone is replaced by fibrous tissue. Masticatory forces can displace this mobile tissue leading to the loss of peripheral seal which leads to the loss of retention. The various treatment options for the management of flabby tissues include surgical removal of fibrous tissue prior to conventional technique, implant retained fixed or removable prosthesis and modified impression techniques without surgical intervention. Mucocompressive impression techniques causes distortion of flabby tissues which are likely to result in an unretentive and unstable dentures. Mucostatic impression techniques may lead to the movement of the denture base relative to the basal tissues. Therefore, modified impression techniques based on selective pressure theory are used in this condition which can record the fibrous tissues in undistorted form and help us to fabricate a stable and functionally satisfying denture. This paper presents a case report in which modified impression technique was used to tackle flabby ridge of maxilla with palatal splinting two tray technique and controlled lateral pressure technique in mandible. Author: Aanchal Taneja (0557). Co-author: Sonika Mishra (0825). Institution: Inderprastha Dental college and hospital, Ghaziabad, Uttar Pradesh. Contact details: 9999215805.

REATTACHMENT OF FRACTURED ANTERIOR TEETH :SAVING THE UNSAVABLE!

AARTI MEHTA

JAIPUR DENTAL COLLEGE, JAIPUR

Anterior crown-root fractures are the most common and challenging fracture types in the literature of dental traumatology that require quick functional and esthetic repair. The paper discusses different treatment options using various techniques and materials available for the same. Through a short case report ,it also appraises the need to retain the salvaged “natural” clinical crown as it is to the root with the help of developing trends in adhesive dentistry and post system that have effectively simplified the reattachment of fractured tooth fragment. Even if the evidence for the success of above proposed treatment is less discussed and documented ,nonetheless it still proves to be highly non-invasive, esthetic and cost-effective approach, leaving options for further more invasive treatment in the future.

PLANNING THE UNPLAN - CASE SERIES ON MANAGEMENT OF MAXILLOFACIAL DEFECTS

ABINAYAM.V, REMYA MOL

TAMIL NADU GOVERNMENT DENTAL COLLEGE AND HOSPITAL, CHENNAI

“It's a god given right of every human being to appear human”. Acquired/congenital maxillary defects cause communication between maxillary antrum, oral cavity, oropharynx and nasopharynx results in impaired facial esthetics, compromised mastication, swallowing, speech and significant reduction in their quality life. Prosthetic rehabilitation of patients after a maxillectomy can be managed according to quality of supporting tissues (hard & soft palate, alveolar bone, floor of nasal cavity, maxillary sinus and extend upto floor of orbital zygomatic complex) and remaining dentition with the help of the obturators. A well made maxillary obturator minimizes fluid leakage into nasal cavity and maxillary sinus, improves swallowing, mastication, esthetics by replacing the teeth removed during the surgery, and improves speech by allowing a separation between oral and nasal resonance thereby minimizing hyper nasality. This paper consists of clinical reports describing the prosthodontic rehabilitation and fabrication of an obturator for a patient with a maxillary defect.

IMPRESSION TECHNIQUES FOR MICROSTOMIA PATIENTS

ABIRAMI. V, RANI JAYATHA, ABDUL BASITH, AKHILA

MAHE INSTITUTE OF DENTAL SCIENCES AND HOSPITAL, PUDUCHERRY

Microstomia is the term used to describe a congenital or acquired reduction in the size of the oral aperture that is severe enough to compromise cosmesis, nutrition, and quality of life. Etiological factors include trauma, chemical or electrical burns, postburn contracture, oral submucous fibrosis, genetic disorders like Scleroderma, Freeman–Sheldon syndrome, Hallerman – Streiff syndrome, Fine–Lubinsky syndrome, Leopard syndrome, Auriculo-condylar syndrome and Epidermolysis bullosa . It can also occur as a result of surgical treatment for postburn perioral contracture and lip surgeries. Individuals with microstomia may experience several problems related to speech, nutritional needs, dental hygiene, facial expression and social interaction. The prime concern of a Prosthodontist in the management of microstomia patients is to make a precise impression. Surgical management of microstomia include z-plasties, skin grafts, commissurotomies and local flaps. Non-surgical methods to improve mouth opening include use of static and dynamic mouth splints and vertical orthose. Sectional impression techniques are used to make impressions for microstomia patients. Pneumatic impression method is a recent technique for cases with microstomia and high arch palate using latex ballon and controlled air pressure. We are here to present a model of a different impression technique for microstomia patients.

PRESERVATION WITH PRECISION- A CASE SERIES

AMRUTA GUJAR, ANKITA CHITNIS

D Y PATIL SCHOOL OF DENTISTRY, NAVI MUMBAI

PRESERVATION WITH PRECISION- A CASE SERIES. Achieving excellence in aesthetics and prevention of remaining structure is the ultimate goal in preventive prosthodontics. According to Devan's dictum, it states that, "preservation of what remains is more important than meticulous replacement of what is missing." Overdenture is a preventive prosthodontic concept as it endeavours to preserve remaining teeth and thus found to be eminently suitable for treating patients with few remaining natural teeth. . There is a plethora of options ranging from copings to precision attachments which can be fabricated on the teeth which help in enhancing the retention of the denture. It serves a win-win situation for the patient who gets to "keep" his teeth and also for the operator who can provide a more favorable outcome for the patient. The use of such attachments by preserving the remaining teeth allows the clinician to improve the retention of the prosthesis, thus allowing the patient to experience better comfort. This case series discusses about the various ways in which we can make an overdenture i.e using bar, ball attachments, magnets, implants, etc. This will also describe about the case selection protocol for all the cases. All the steps involved in making the overdenture will be discussed in detail. - A Case Series.

PROSTHODONTIC REHABILITATION OF HEMIMAXILLECTOMY AND HEMIMANDIBULECTOMY PATIENT - A CASE REPORT

ANAMIKA ABRAHAM, KAVITA RAJ

GOVT DENTAL COLLEGE, INDORE

PROSTHODONTIC REHABILITATION OF HEMIMAXILLECTOMY AND HEMIMANDIBULECTOMY PATIENT – A CASE REPORT. Segmental resection of the maxilla and mandible results in significant physiological and esthetic problems,. especially if complete resection has been performed. Obturator prostheses is fabricated to seal congenital or acquired defect . primarily of the hard palate and contiguous alveolar and soft tissue structures. Successful obturation depends on the volume of the defect, and the positioning of remaining hard . and soft tissues to be used to retain, stabilize, and support the prosthesis. The weight of the prosthesis may act as a dislocating force; therefore, the prosthesis must be as light as possible. Obturator designs for partial and total maxillectomy defects have included open and closed hollow obturators, . inflatable obturators, and 2-piece hollow obturator prostheses. Guide flange prosthesis (GFP) is a mandibular conventional prosthesis designed for the patient who is able. to achieve an appropriate mediolateral position of the mandible but is unable to repeat this position. consistently for adequate mastication. The most important difficulty encountered is mandibular deviation. towards the defective side. The earlier that mandibular guidance therapy initiated in the course of treatment,. the more successful the patient's definitive occlusal relationship and masticatory efficiency. This case report describes early prosthodontic management of a patient who has undergone a hemimaxillectomy and hemimandibulectomy. with bulb obturator and mandibular guide flange prosthesis.

COLLAPSIBLE DENTURE: A CLINICAL REPORT

ANISHA SHETTY

MANIPAL COLLEGE OF DENTAL SCIENCES, MANIPAL

Microstomia is defined as an acquired or congenital condition involving a reduction in the perimeter of the oral cavity or an abnormally small oral aperture. Oral cavity is an entrance to the rest of the body and a disability in this crucial area leads to impaired function, psychology and aesthetics. Management of patients with microstomia poses a great challenge in the field of prosthodontics. Patients often find difficulty in insertion or removal of the removable prosthesis due to the constricted mouth opening. Fabrication of Complete denture for the patients with microstomia presents difficulty at all stages from preliminary impression to fabrication of complete prosthesis. The techniques to deal in such scenario are through modification of the routine procedure. It will be the responsibility of a prosthodontist to meet such challenges as these patients face difficulty in inserting the dentures as well as in removing it and the problem exacerbates with age as the manual dexterity reduces. The rehabilitation should offer them functional demand with aesthetics and elevates the quality of life. This clinical report presents an innovative technique incorporated in fabrication of collapsible complete denture. The modification of impression trays, record bases and final prosthesis has been described in the report.

IMPLANT SUPPORTED OVERDENTURE: A CASE REPORT

ANKITA PRIYA, RAKHI KUMARI

BUDDHA INSTITUTE OF DENTAL SCIENCES AND HOSPITAL, PATNA

Prosthetic rehabilitation of an edentulous patient with resorbed ridges involves treatment approaches, such as complete dentures, implant supported fixed prosthesis and implant supported overdentures. Implant supported overdenture have proved to be one of the best alternative approach in prosthetic rehabilitation of various cases of edentulism. They satisfies the patient's expectation, improves quality of life with their long term serviceability, affordability and predictable outcomes. Over the years, significant advancements have taken place in the implant systems and the methods of attachments. This paper describes a case report in which a patient with completely edentulous mandible with partially edentulous maxilla was rehabilitated with an implant supported overdenture in mandible with removable partial denture in maxilla.

MANAGEMENT OF A FRACTURED IMPLANT ABUTMENT SCREW

APARNA P M, DEEKSHITHA N G

GOVT.DENTAL COLLEGE THIRUVANANTHAPURAM

Dental implants have been a life-enhancing modality for partially and completely edentulous patients. Implants can successfully support a cemented or screw-retained single crown. However, this modality is not without complications. Screw fracture is a complication of implant-supported or retained restorations. Misch states prosthetic screw fracture occurs approximately 4% of the time and abutment screw fracture 2% of the time.¹ Other authors report that the fracture of an abutment screw is a rare occurrence (0.5% to 8%) and can occur due to parafunctional habits, overloading of the abutment, heavy occlusal contacts, excessive torque on the screw, and metal fatigue. There are several techniques for managing a fractured abutment screw. These include implant removal and retreatment, fabrication of a cemented cast post and core, screw fragment retrieval, and other techniques. This paper demonstrates a method to salvage an implant that has been damaged or is no longer usable because of a fractured screw that cannot be removed. A prefabricated screw post was modified to custom post with clear self-cure acrylic resin and cemented and a new crown was fabricated.

IMPLANT SUPPORTED FIXED PROSTHESIS USING A COMBINATION OF HYBRID PROSTHESIS AND ALL CERAMIC TEETH

ARUN P S, SHIFA BALKHIS A

GDC, CALICUT

Hybrid prosthesis were introduced in fixed dental implant prosthesis to overcome some of the deficiencies of PFM restorations. They usually consist of a metallic framework veneered with acrylic or composite tooth material for pink and white esthetics. However, long term follow ups of such cases showed discoloration and wear and tear of the prosthesis. Moreover dislodgement of acrylic tooth /composite tooth has been a common complaint for these patients. PFM/Zirconia crowns were also not devoid of chipping of veneering materials. PEEK framework is an alternative to metallic framework in hybrid prosthesis, with the advantage of flexibility of design, easy to adjust, reduced weight and with a modulus of elasticity equal to that of bone. It can be fabricated as either cemented or screw retained prosthesis. However, they are usually veneered with composite / acrylic to get optimal aesthetics, but the durability of veneering materials are questionable. In order to overcome this situation a new combination of materials are introduced - PEEK framework veneered with injection moulded ceramic (E max, Ivoclar Vivadent) for white esthetics and gingival colored composite for pink esthetics. This technique combines the good properties of PEEK and ease of manipulation of composite with the unsurpassed aesthetics of injection moulded ceramic crowns (E max, Ivoclar Vivadent). This presentation showcases the advantages of this new combination over the conventional hybrid prosthesis.

SPECIALIZED DENTURES: AN INDIVIDUALISTIC APPROACH

ARYA NAIR R

SRI SANKARA DENTAL COLLEGE, CHERUNNIYOOR, KERALA

Edentulism, either complete or partial, cannot always be treated with conventional treatment protocol. Such situations require modification in conventional designing of the prosthesis to achieve better results. Newer trends in the field of prosthodontics have brought revolutionary changes in treatment plan. Thus, an unconventional approach is being accomplished in managing many clinical situations. These dentures often follow new techniques based on old fundamentals of prosthodontics. This presentation discusses few cases rehabilitated using unconventional approach for fabrication.

**PROSTHETIC MANAGEMENT OF MICROSTOMIA WITH CUSTOMIZED DYNAMIC SPLINT : A
CASE REPORT**

ASHISH THAKUR, DUSHYANT CHAUHAN

ARMY DENTAL CENTRE R & R, NEW DELHI

Microstomia is abnormally small oral orifice. There are many etiology which leads to microstomia. Trauma, ingestion of caustic substances, electrical and thermal burns of perioral tissues and reconstructive lip surgeries can result in undesired hypertrophic scar formation and inhibit mouth opening. Less commonly, microstomia can occur as a result of systemic or inherited disorders. Individuals with microstomia may experience problems related to speech, nutritional needs, dental hygiene, facial expression and social interaction. Management of microstomia due to facial burns is complex due to presence of hypertrophic scar and demands that the functional and aesthetic rehabilitation. Treatment aims at providing adequately functioning lips and ensuring stable and long lasting results without a relapse. Treatment options include surgical techniques, non-surgical approaches or a combination of both these methods. Following burns of the lip and mouth, splints are used to prevent microstomia, to regain lost mouth opening and contracture of scar tissue. A large variety of intraoral and extraoral microstomia appliances are in use which are divided as static, tooth supported and dynamic appliances. This case report explains the management of microstomia secondary to facial burns by using a dynamic appliance in combination with intra lesional injections of triamcinolone acetonide.

PROSTHODONTIC PHILOSOPHY OF SMILE V/S VISUAL PERCEPTION OF THE BEHOLDER A CORRELATION.

BHAVYA BHARATHI. M, SUPRAJA V P

RAJARAJESHWARI DENTAL COLLEGE AND HOSPITAL, BENGALURU

Smile, a person's ability to express a range of emotions with the structure and movement of the teeth and lips, can often determine how well a person can function in society. Smile is one of the facial expressions that are essential in expressing friendliness, agreement and appreciation. This demand for a pleasant smile drives us to a field of dental esthetics and thus the role of a prosthodontist become significant. A smile design should always include the evaluation and analysis of both facial and dental composition. Smile Design refers to the many scientific and artistic principles that considered collectively can create a beautiful smile. An attractive smile enhances the appearance and acceptance of an individual in our society. Smile design involves various principles involved to get attractive smile. In this study we will be incorporating these principles in natural dentition to find out correlation between attractive smile and principles of smile design in natural teeth by visual perception. This paper aims to study the correlation between prosthodontic philosophy of smile and the visual perception of the beholder.

REHABILITATION OF CONGENITAL MAXILLARY DEFECT WITH MODIFIED FIXED REMOVABLE PROSTHESIS: - A CASE REPORT

BILAAL SIDHIQUE ABUBACKER, SONY SEBASTIAN

AZEEZIA COLLEGE OF DENTAL SCIENCE AND RESEARCH, KOLLAM, KERALA

Prosthetic rehabilitation of congenital anterior ridge defect is a challenge for the prosthodontist as it should satisfy both aesthetic and functional demands of the patient. Congenital intraoral defects, not treated surgically, presents with compromised clinical situation where, treatment plan should be aimed at providing a prosthesis that is aesthetic, functional and hygienic. Often patients prefer fixed restorations as it is superior to removable restoration in terms of function and comfort. But, oro-nasal fistula treated with fixed restorations have raised concerns on oral hygiene. Therefore, an appropriate prosthetic design, other than conventional removable or fixed partial denture, should be formulated that satisfies all the objectives of a prosthesis. Andrews Bridge is a partial denture design where pontic portion of the prosthesis is removable permitting access for oral hygiene. This paper describes a case of missing maxillary anterior teeth with cleft in the pre-maxillary region which was rehabilitated using modified Andrews's bridge design.

THE COVER UP-WORKING AROUND EXISTING ANATOMY

C.SUBASHINI, LAKSHMI PRIYA.R

VINAYAKA MISSIONS SANKARACHARIYAR DENTAL COLLEGE, SALEM, TAMIL NADU

Loss of Ear,Finger,Eye,Nose are most commonly due to traumatic injuries it may also be due to congenital malformation or disease,irrespective of etiology,the loss of these structures has a considerable social and psychological impact on an individual.In order to alleviate these problems prosthesis can be fabricated.The concealment of an amputated part with the help of prosthesis can shield an amputee from social stigma.A custom made prosthesis serves as an affordable and satisfactory alternative.It is the birth right of every human to appear socially acceptable.so as a Prosthodontist it is our duty to implement our knowledge into practically and fabricate the prosthesis in an acceptable fashion to meet the physiologic,anatomic,and cosmetic requirements of the patient.In this way,we can help patient begin to heal medically and emotionally as soon as possible.

PROSTHETIC REHABILITATION FOLLOWING HEMIMANDIBULECTOMY

CASTURI LAXMIRAJ SURYANARAYANAMURTY

COLLEGE OF DENTAL SCIENCES, DAVANGERE

The unilateral loss of mandibular continuity due to surgery or trauma results in mandibular deviation towards the defect side resulting in loss of occlusion on the unresected side. Mandibular resections also result in impaired speech articulation, difficulty in swallowing, mandibular deviation, poor control of salivary secretions, and severe facial disfigurement. One of the primary goals of treatment is the restoration of acceptable occlusal function. Residual dentition can be used to confirm proper realignment of the mandibular fragments in dentate patients. This can be achieved by the use of various guidance prosthesis. The guidance prosthesis can effectively retrain the mandible after partial mandibulectomy procedures to achieve a functional occlusal relationship thereby facilitating early progression to a nearly perfect functioning permanent restoration. This clinical report reveals the rehabilitation of patient who underwent hemisection of the mandible, subsequent to treatment. He was successfully rehabilitated with mandibular guide flange prosthesis.

RETRIEVAL OF DENTAL IMPLANT DISPLACED INTO MAXILLARY SINUS ASSISTED BY ENDOSCOPE AND CADWELL – LUC TECHNIQUE.

CHANDAN KUMAR ROY, IBADAT JAMIL

RAMA DENTAL COLLEGE, KANPUR

Rehabilitation of edentulous jaws with implant supported prosthesis has become a common practice among dental surgeons in the last three decades, but there are some complications like periimplantitis, prosthetic failure, technical complication, medical complications- etc, one of them is the displacement of dental implants into the maxillary sinus due to poor bone quality and quantity. Any foreign body into the maxillary sinus should be removed in order to prevent sinusitis and sinus related problems which includes dental implants also. Hereby, presenting a case of dental implant which migrated into maxillary sinus and was removed by combination of endoscope and “CALDWELL-LUC” technique.

PRESURGICAL NASOALVEOLAR MOLDING THERAPY (PNAM) IN CLEFT LIP AND PALATE INDIVIDUALS: CASE SERIES

CHARUPRIYA RAJORE

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Cleft lip and palate deformity is a congenital defect of the middle third of the face and is one of the most common congenital birth defects with the greatest incidence among Asians (2.1 cases/1000 live births). Surgical repair of the lip is usually done between 3 and 6 months of age and though there is lack of uniform agreement, palate closure is done between 12 and 18 months of age. Surgery alone may not prove to be beneficial especially in cases where the size of the cleft is large. In such cases, surgical closure may lead to an increase in tissue tension at the surgical site, which is not desirable. Presurgical nasoalveolar molding therapy (PNAM) is a presurgical infant orthopedics technique that reduces the severity of the cleft and nasal deformity before the lip and palate surgery. The appliance helps to bring the cleft segments into a more acceptable alignment and resemble a more normal configuration prior to lip surgery. The contemporary view is that when used as an adjunctive procedure to definitive lip repair, infant maxillary orthopedics provides presurgical benefits. For the fabrication of such appliances, an impression of the defect is necessary. Impression making in infants with cleft lip and palate is a challenging task. . This paper describes the series of case reports showing a new approach of PNAM therapy for an infant with complete cleft lip and palate showing significant reduction in cleft defect size and improved contour and topography of deformed surrounding soft tissues.

CREATING FACIAL SYMMETRY BY OCULAR PROSTHESIS.

CHETANA RAMBHAD, RUNALI CHAVAN

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The lost part of face can have physical, social and psychological impact on those affected. Several ocular and orbital disorders require surgical intervention that may result in ocular defects. Loss of eye or disfigured eye has far reaching impact on an individual's psyche. Additionally, it affects one's social and professional life. Maxillofacial prosthesis, which restore and replace stomatognathic and associated facial features with artificial substitute, aim to improve the patients esthetics, restore and maintain health of the remaining structures, and consequently provide physical and mental well-being. Cosmetic rehabilitation with custom made prosthetic device give such individuals, professional and social acceptance and alleviates problems. Improved fit is one of the advantages of custom ocular prosthesis. Numerous methods exist to gain intimate tissue adaptation. This paper represents restoration of patient's eye with a custom designed ocular prosthesis with two different methods.

FALLIBLE PROSTHESIS: A CASE OF CHRONIC CERVICOBANCHIAL PAIN AND HEADACHE.

DEEKSHA AGGARWAL

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A faulty prosthesis is presumed to functionally disturb the sensory feedback from the dentition, thus disturbing optimum form–function relationship. Since the masticatory muscles participate in the control of head position, any functional disturbance in them will be reflected in the function of reciprocating muscles on the opposite side of the cervical spine. The risk to the function of the masticatory organ caused by painful muscles at the back of the neck and by degeneration of the intervertebral disks, has been recognized in the dental literature. The possibility that temporomandibular disorders (TMD) could be a risk for neck and shoulder problems has received serious attention by few authors. The present clinical trial presents a case of long term severe cervicobanchial pain in conjunction with tenderness of temporomandibular joint and headache due to fabrication of faulty prosthesis. The treatment plan consisted of fabrication of new prosthesis in harmony with the patient's physiological plane of occlusion. The faulty prosthesis were removed and the patient was provided with a temporary splint at correct vertical dimension and a freshly obtained centric relation. The outcome variables included assessment of subjective pain, discomfort, improvement in cervical spine mobility and reduction in intensity of pain on movement. Significant relief of pain was observed on follow-up. Subsequently the prosthesis was permanently cemented at this determined plane of stable occlusion. Hence, it can be concluded that a prosthesis delivered at correct vertical dimensions plays an important role in long-term management of cervicobanchial pain in adjunct to the conventional physical therapy.

ATTACHMENTS-CLASSICAL WAY TO CLING ON

DEENSON A, SHRUTI AGARWAL

TAMIL NADU GOVT DENTAL COLLEGE AND HOSPITAL, CHENNAI

A case series on prosthetic rehabilitation of maxillo-mandibular defects. Restoration of normal function and esthetics appearance with the dental prosthesis is a major challenge in the rehabilitation of patient who have lost the teeth a surrounding bone because of surgery for oral cyst or tumor all such defect require prosthetic rehabilitation to re-establish patient self-esteem and maintain esthetic profile and to minimize the difficulty in chewing, swallowing, and speaking. This paper describes rehabilitation of maxillary and mandibular defects with attachment retained prosthesis.

EVALUATION OF MASTICATORY EFFICIENCY AND ORAL HEALTH RELATED QUALITY OF LIFE BEFORE AND AFTER COMPLETE DENTURE TREATMENT

DEEPTHI S S

PMS COLLEGE OF DENTAL SCIENCE AND RESEARCH, THIRUVANANTHAPURAM, KERALA

EVALUATION OF MASTICATORY EFFICIENCY AND ORAL HEALTH RELATED QUALITY OF LIFE BEFORE AND AFTER COMPLETE DENTURE TREATMENT. Loss of natural teeth not only results in aesthetics issue to individual but can also seriously risk masticatory function. A long term edentulousness eventually results in bone resorbtion, TMJ disorders or muscle hypotonicity which ultimately leads to direct damage of masticatory process. Furthermore, a reduction in physiological secretion of gastric acid is characteristic of ageing human process which reinforces the importance of efficient mastication to start food digestion. Although there are limitations, conventional complete denture still represent the most common therapy for completely edentulous patient. However problems such as discomfort and difficulty in chewing certain foods are generally reported by denture wearers as a result of reduced masticatory efficiency ranges from 16% to 50% when compared to dentate subjects. In complete denture wearers both subjective experience and objective masticatory efficiency with their dentures are determined by certain factors such as age, sex duration of edentulism, oral conditions and previous denture experiences. This study was intended to evaluate masticatory performance and oral health related quality of life before insertion and one month after insertion of new complete denture.

PROSTHETIC MANAGEMENT OF OCULAR DEFECTS: A CASE SERIES

DISHA, ANKITA PASAD

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En bloc removal of the entire orbit - exenteration or enucleation of only the eyeball - scleral defects are common defects of the eye. In India, trauma, tumors, congenital absence of orbit are the main causes of such defects. These patients not only suffer loss of vision, but also become esthetically and psychologically handicapped. They go through a lot of social embarrassment and are not well accepted in society. It is impossible for the ophthalmic surgeon to correct all such defects surgically. This is where we, as maxillofacial prosthodontists can step in and provide a prosthetic eye. It may not be able to restore their vision but it can have a positive effect on their psychology and give them social acceptance. This involves replacing the entire eye or simply a 'shell' that replaces the outer scleral portion. A multidisciplinary approach is a must including a maxillofacial prosthodontist, ophthalmologist, surgeon and maxillofacial prosthetist. Eye prostheses are fabricated to precisely fit the confines of the ocular socket of the patient. They mainly comprise of the sclera and iris and are colored and polished to make the prosthesis look natural. They not only provide esthetics, but also protect the eye cavity, preventing infections. These prostheses can be prefabricated or custom made, the latter offering better fit, esthetics and some amount of motility or mobility. Presented in this paper is a case series of ocular rehabilitation with eye prosthesis.

GLIMPSE OF EYE, THE TRUE STORY OF COMPLETE FABRICATION: A CASE REPORT

DISHITA CHOKHANI

MIDSR DENTAL COLLEGE, LATUR, MAHARASHTRA

Facial features are the most important non-verbal means of communication. The mutilation of a portion of face can cause a heavy impact on the self-image and personality of an individual which may lead to physical and psychological distress. The loss of eye requires early replacement so that the patient may return to a normal life. The primary objective, in each case is to construct a prosthesis that will restore the defect, improve esthetics, and thereby benefit the morale of the patient. With evolution of maxillofacial rehabilitation, ocular prosthesis has proved to be a boon. An ocular prosthesis is a simulation of human anatomy using prosthetic materials to create the illusion of a perfectly normal healthy eye and surrounding tissue. Therefore it is rightly said “maxillofacial rehabilitation adds life to years.”. The present case report enlightens technique of fabrication, aesthetics achieved and functionality of ocular prosthesis. Key words: Ocular prosthesis, maxillofacial rehabilitation.

A NOVEL AND CONSERVATIVE APPROACH: CU-SIL LIKE DENTURE

DIVYA GOEL

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A NOVEL AND CONSERVATIVE APPROACH: CU-SIL LIKE DENTURE. According to De Van, the preservation of what remains is of utmost importance rather than the meticulous replacement of what has been lost. Need based use of unconventional approach is a growing demand in prosthodontics in India. The increasing demands of the patient have led to innovative techniques for fabricating complete dentures. Conventional techniques may provide satisfactory results in most patients but may not be suitable in all cases. In patients with very few teeth remaining, treatment options include overdentures, immediate dentures or transitional dentures. Transitional dentures prove to be a good treatment option for patients who are not willing for any extraction or endodontic procedures. Cu-sil like denture is one of the transitional dentures which is easy to fabricate, saves time as well as reduces the cost of treatment. It acts as a simplified approach for preserving few remaining teeth. These dentures provide a psychological boost to patients and serve as a viable alternative. Cu-sil like dentures consist of an acrylic portion around the remaining teeth and make the best use of combination; support from the edentulous ridge and added retention and stability from the existing, healthy tooth structures. It not only promotes the alveolar ridge integrity but also helps in retaining the proprioceptive ability of the periodontium. This paper presents a case of fabrication of Cu-sil like denture in a patient with two teeth remaining in maxillary arch.

CUSTOMIZED CHEEK PLUMPER WITH ATTACHMENT FOR A COMPLETELY EDENTULOUS PATIENT TO ENHANCE ESTHETICS: A CLINICAL REPORT

DODDY LOKANATHAN BALAJI

GOVT.DENTAL COLLEGE AND HOSPITAL KADAPA, PUTTAMPALLI, ANDHRA PRADESH

Prosthetic rehabilitation of a completely edentulous patient should never be restricted to the replacement of missing teeth. The ultimate aim of complete denture treatment should be restoration of the full range of oral functions and esthetics. Slumped cheeks are always a concern for esthetically demanding complete denture patients. This case describes a simple, scientific, cost-effective technique to improve facial esthetics in a completely edentulous patient with the help of attachment retained a cheek plumper. Thus, an effort was made to keep the cheek plumper unobtrusive yet effective to ensure complete integration of the prosthesis into the stomatognathic system.

SINGLE COMPLETE DENTURE PROTOCOL: PRECISION IN OCCLUSION

DRASHTI GANDHI

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Single complete denture opposing natural dentition or artificial fixed prosthesis is a frequent scenario in clinical practice. However wearing of occlusal surface of the acrylic teeth of denture is known fact which leads to subsequent changes in Jaw Relation, Vertical Dimension, Loss of Aesthetics, Aged looks and decrease in masticatory efficiency resulting in greater bone resorption. The treatment modalities include change of dentures after a regular interval of 4-5 years. This ultimately reduces the clinical longevity of the prosthesis. Another problem is to achieve occlusal harmony, which should not compromise the retention and stability of the denture and will permit uniform stress distribution of the forces. So an absolute solution is to strengthen the single complete denture by reinforcing it with stronger materials. The Frankfort mandibular plane angle analysis has to be done as it plays an important role in establishing a correct vertical relation. It is obvious from previous studies that the force generated by conventional denture when compared to natural dentition or fixed partial denture is very less, hence ceramic or metal occlusion and metal reinforced denture base will definitely improve the quality of patient's life. Among the ceramics, the zirconia is considered to have best flexure strength, surpassing esthetics when compared to metal occlusion. Mechanical properties of zirconia allow them to be used in posteriors and permit substantial reduction on core thickness. This case report describes clinical management and fabrication of single complete denture with the metal reinforced denture bases with zirconia and crown fixed partial denture

ENHANCING BEAUTY WITH AN ORBITAL PROSTHESIS

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ENHANCING BEAUTY WITH AN ORBITAL PROSTHESIS-A CASE REPORT. Rehabilitation of a facial defect is indeed a complex task, which requires an individualized design of the technique for each patient. The consequences following the loss of an eye can be very traumatizing both emotionally and physically. Although implant supported orbital prosthesis has a superior outcome, economic constraints do matter. This paper describes a simplified technique for the fabrication of a Room temperature vulcanized silicone orbital prosthesis to achieve ideal fit and aesthetics.

TOOTH SUPPORTED OVERDENTURE-A CONCEPT OVERSHADOWED BUT NOT YET FORGOTTEN

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Tooth supported over denture, otherwise Hybrid prosthesis or Telescoping denture; is a simple and cost effective treatment plan than the implant over dentures. It is the most appropriate treatment modality for elderly patients with few remaining teeth. The root maintained under the denture base preserve the alveolar ridge, thereby providing sensory feedback and improve the stability of the denture. Moreover, the use of copings and precision attachments on the remaining teeth enhances the retention of the denture. Since bone is a dynamic tissue, tooth extraction can result in initiation of bone resorption pattern. However, if the teeth is retained it can transmit tensile stress, that occurs during occlusal forces, to the alveolar bone, resulting in additional bone formation. This principle helps to preserve bone. The concept of over denture may not be the elixir, but is a positive measure for delaying the process of complete edentulism and helps in the preservation of the bone. To top it all, the psychological advantage for the over denture patient is “I STILL HAVE SOME OF MY OWN TEETH”. In this paper presentation we describe a case report, a novel method of fabricating a tooth supported over denture retained with short cast copings after endodontic treatment.

A SIMPLIFIED IMPLANT RETAINED AESTHETIC FINGER PROSTHESIS WITH SILICON BIOMATERIAL – A CASE REPORT.

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The fabrication of finger prosthesis is as much an art as it is science. Traumatic amputation of finger seriously compromises hand functions and aesthetics. So its mandatory to replace it. It must duplicate the missing structures so that the patient can wear that prosthesis and appear in front of public without fear and unwanted attention. A 18 years old patient reported with loss of her middle finger upto second phalanx and wanted to get it replaced. Impression of amputated finger was made. Implant placement was done. Osteointegration was achieved after 3months and was confirmed radiographically. Mold was made. A wax pattern of prosthesis was fabricated followed by trial and final silicon prosthesis with shade matching was done. This case report aims to describe a simple technique for fabrication of implant retained finger prosthesis.

MAXILLARY OBTURATOR PROSTHESIS FOR A PARTIAL MAXILLECTOMY PATIENT: A CLINICAL CASE REPORT

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Central giant cell granuloma is a relatively uncommon painless bony lesion which accounts for 7% of benign jaw lesions. It mostly involves the younger age group in 65% of cases. It is usually recurrent after the curettage and hence resection is preferred. This clinical report describes an interdisciplinary approach of a 22-year-old young male patient diagnosed with Central giant cell granuloma. The treatment procedures included surgical removal of the tumor, fabrication of an interim obturator and a definitive obturator.

PROSTHETIC REHABILITATION OF ECTODERMAL DYSPLASIA - A CLINICAL CASE REPORT

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Ectodermal dysplasia is a heterogeneous group of inherited disorders, resulting from the abnormal development of two or more tissues at a time which are derived from embryonic ectoderm. The two most common types of ectodermal dysplasias are the X-linked recessive hypohidrotic ectodermal dysplasia (Christ-Siemens-Touraine syndrome) and hidrotic ectodermal dysplasia (Clouston syndrome). Hypohidrotic ectodermal dysplasia is characterized by hypodontia, hypotrichosis and hypohydrosis and hidrotic form also affects the teeth, hair and nails sparing the sweat glands. The Prosthodontic management of such patients with dysplastic condition necessitates a multidisciplinary approach. However the definitive treatment can only be rendered after the completion of growth period, hence an interim prosthesis was given to enhance the esthetic and functional needs of the patient. A 10 year old boy with hypohydrotic ectodermal dysplasia reported to the department of prosthodontics. Extraorally he had fine, sparse, lusterless fair hair over the scalp along with extensive scaling of the skin. On intraoral examination peg shaped maxillary central incisors, both maxillary and mandibular deciduous first molars and permanent first molars were present. Radiographically absence of tooth buds was noticed. Provisional rehabilitation was done using molar bands with patrix part of attachment on either sides. Full veneer crowns for two peg shaped central incisors and conventional removable partial denture was done in the maxillary arch.

MANAGEMENT OF PALATAL AND HEMIMANDIBULECTOMY DEFECT WITH OBTURATOR-CUM-GUIDE PLANE SSSPROSTHESIS

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Oral cancer is the most common form of cancer in India. 130,000 people succumb to oral cancer in India annually. The reason for this high prevalence of oral cancer in India is primarily tobacco consumed in the form of gutka, quid, snuff or misri. Patients who undergo segmental or hemi-mandibulectomy suffer from various postoperative problems in esthetics and function. The solution to such problem is providing a mandibular guidance appliance to correct mandibular deviation to resected side due to loss of muscle action on the affected side. Functional restoration is first priority of the treatment to restore normal function of the jaw which will be restored with guide plane and obturator which restore normal functioning while speaking, swallowing, drinking and esthetic. In this case presentation we manage a case of maxillofacial defect with obturator in maxilla and guiding flange for mandible.

“THE USE OF IMPLANT O-RING ATTACHMENT IN TOOTH SUPPORTED OVERDENTURE- A CASE REPORT.”

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Retaining teeth for an overdenture is an old concept and a viable treatment modality. Overdentures provide better function than conventional complete dentures through a variety of factors, such as improved biting force chewing efficiency and increased speed of controlled mandibular move. Use of precision attachments and adherence to basic principles of complete denture design can improve both retention and stability of overdenture. The use of precision attachments can redirect occlusal forces away from weak supporting abutments and onto soft tissue, or redirect occlusal forces toward stronger abutments and away from soft tissues. This case report describes the fabrication of tooth supported overdenture retained using metal runner bar framework and O-ring resilient stud attachment.

PROSTHETIC PHALANGES

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Biomimetic is the field of science in which inspirations are elicited from nature to design practical materials and systems that can imitate structure and function of native biological systems, where it has been used by designers to help in solving human problems this has currently found application in the field of maxillofacial prosthodontics which is an art and science which provides life-like appearance to the missing structures of an individual. Complete or partial ?ngers are the most commonly encountered forms of partial hand losses. Though ?nger amputations are commonly due to traumatic injuries, digit loss may also be attributed to congenital malformations and disease. Irrespective of the etiology, the loss of a ?nger has a considerable functional and psychological impact on an individual. In order to alleviate these problems, partial or complete ?nger prosthesis may be fabricated. This paper presentation is about finger prosthesis aiding in functional and aesthetic aspect.

PROSTHETIC REHABILITATION OF PARTIALLY EDENTULOUS MAXILLARY AND MANDIBULAR ARCHES - A CASE REPORT

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Multiple missing teeth often warrants careful diagnosis and meticulous treatment planning. In this case report, patient's esthetic and functional requirements were fulfilled with bar attachment retained cast partial denture and semi precision attachments. Economic status of patient sometimes necessitates unconventional design approaches.

MANAGEMENT OF HIGHLY RESORBED MANDIBULAR RIDGE – REVIEW AND A CASE REPORT

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Successful complete denture therapy is dependent on multiple factors. Good foundation for dentures provides a good base for retention and stability and support of dentures. However, because of continuous resorption of residual ridges, these factors get compromised. The mandibular ridge resorbs at a faster rate than the maxillary ridge. Management of highly resorbed ridge has always posed a challenge to the prosthodontist for years. The reduced surface area of the mandibular ridge and the dislodging forces of the tongue and cheeks tend to create a lot of problems in the retention, stability and support of the mandibular denture. Ridge augmentation and dental implants are commonly used nowadays, to improve success of mandibular dentures. However, some patients cannot or are not willing to undergo surgery. Making a conventional denture for such patients is a difficult treatment option. Hence, any improvement in retention and stability achieved through modification or addition in the steps of conventional denture fabrication is desired. Presenting in this report is a case with severely resorbed mandibular ridge. Dynamic impression was made to gain as much retention and extension of the denture base as possible. The neutral zone was also recorded to arrange the teeth and improve on the contours of the polished surface of flanges. This resulted in providing the patient a functional and comfortable prosthesis, thus improving the quality of life of the patient considerably.

IMPLANT PLACEMENT IN AESTHETIC ZONE IN COMPROMISED SITUATIONS

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tooth loss impairs not only oral health while it affects overall general health of individual. now a days replacement of missing tooth has advanced from removable to fixed prosthesis. implant is the best option available for tooth loss but implant placement require sufficient bone volume around it. In bone deficient regions different methods and techniques of bone augmentation are used to establish the desired bone volume so that sufficient number of required size of implants can be placed at prosthetically correct position. Bone augmentation procedures include ridge split technique, GBR, bone grafting , their combinations etc. every procedure has specific indication and advantage.

PROSTHODONTIC PROSPECTIVE FOR REHABILITATION OF EDENTULOUS MANDIBULAR JAW USING DENTAL IMPLANTS WITH PAULO MALO BRIDGE.

ISH KUMAR SINGLA

JCD DENTAL COLLEGE SIRSA.

Patients with edentulous mandibular jaw often desire a treatment i.e. fixed in terms of retention and stability and yet easily cleansable. Often, the initial prosthesis that comes to mind to replace the missing hard and soft tissue structures and restore the patients esthetic and functional health is the removable prosthesis. However, this prosthesis may not meet the patient's expectations for a fixed prosthesis. An alternative to implant retained overdenture would be Paulo Malo bridge. Paulo Malo bridge very high success rate and has a high esthetic value. The bridge is hygienic and easy to maintain and clean. It is economical compared to the alternative techniques which require placement of more implants. Longer implants can be placed by tilting them posteriorly which helps in improving anchorage. A female patient aged 50 years reported to department of prosthodontics with severely periodontally compromised dentition. She has been treated with Paulo Malo Bridge as mandibular prosthesis.

PROSTHODONTIC REHABILITATION OF HEMIMAXILLECTOMY PATIENTS

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PROSTHODONTIC REHABILITATION OF HEMIMAXILLECTOMY PATIENTS. Clinical report. Maxillofacial defects may result due to congenital disorders, trauma or surgical resection of tumors. The patient with defects suffer a lack of acceptance in society, lack of proper speech, regurgitation along with the other problems like difficulty in mastication, respiratory problems and ultimately leading to lack of confidence and satisfaction. One of the most rapidly growing areas of dentistry from the standpoint of both interest and need is maxillofacial prosthetics. Rehabilitation of the defect is a challenging task both for patient as well as clinician. Maximum consideration of the clinician remains in making the obturation as simple to handle as possible, easy to maintain, biocompatible and light in weight. This paper describes the treatment of the hemimaxillectomy cases with the obturators.

MALO BRIDGE - “REFURBISHING PROSTHETIC PRECISION”.

ISHITA PAREKH

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Immediate loading of implant supported prosthesis is documented with high and predictable success rates for edentulous mouth. Traditional implant treatment plan typically called for a significant number of implants to be placed vertically with antero-posterior spread. The complications associated with such treatment plan is more especially in posterior maxilla and mandible due to presence of vital structure; a solution for such situation is “All-on-4” concept – a modern technique in implant denture rehabilitation introduced in 1993 by Paulo Malo and published in 2003 after a 10 year longitudinal study. Tilting distal implants in edentulous arches enables placement of longer implants, more surface area, improved prosthetic support with shorter cantilever arm, inter-implant distance and anchorage in bone. The high cumulative survival rate of All-on-4 treatment concept offers a predictable and conservative way to treat the atrophic jaw as an alternative option to more invasive procedures. Prosthetic phase of this “Malo concept” involves rehabilitation using prosthesis popularly known as “Malo bridge”. Success rate of this prosthesis for full mouth rehabilitation is documented to be 100%. Till date no literature is available on treating the partially edentulous arch using “Malo bridge” concept. This paper presentation focus on case report of successfully rehabilitating partially edentulous maxillary arch using “Malo bridge”.

SALVAGING THE ESTHETICS AND OCCLUSION WITH HYBRID (FP-3) PRO STHESIS AND TOOTH IMPLANT SUPPORTED PROSTHESIS – A CASE REPORT

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Modern dentistry has changed tremendously with implant therapy. For the successful implant therapy, making a proper treatment plan considering both surgical and prosthetic phase in mind is the key of success. Implant-supported hybrid prosthesis is an acrylic resin fixed removable dental prosthesis, supported and retained by screws threaded into the implants which might be a solution for the cases those need restoration for esthetics, function, lip support, and speech. The rehabilitation of partially edentulous patients with hybrid dentures has been observed to achieve greater masticatory function and psychological satisfaction than with conventional removable partial dentures. This case report aims to present the esthetic and functional rehabilitation of 67 years old man who reported to our department with the chief complaint of fractured prosthesis in maxillary anterior region and diminished chewing efficiency due to missing dentition and chipped off porcelain in previous fixed partial prosthesis in mandibular right and left posterior region.

AESTHETIC AND FUNCTIONAL REHABILITATION OF COMPROMISED COMPLETELY EDENTULOUS PATIENT - A CASE REPORT

JAHANARA, DIVYA.J

MAMATA DENTAL COLLEGE, TELANGANA

. AESTHETIC AND FUNCTIONAL REHABILITATION OF COMPROMISED COMPLETELY EDENTULOUS PATIENT - A CASE REPORT. Aesthetics, function and phonetics play an important role in complete denture therapy. Prosthetic rehabilitation of a completely edentulous patient no longer confines to only replacement of missing teeth, often patients are too demanding for improvement in esthetics, function and phonetics during the course of treatment. Rehabilitation with “Complete denture” are the commonest form of treatment for the edentulous jaws, but the most challenging task is to provide a stable retainable prosthesis. To overcome this problem the teeth should be arranged so that the forces exerted by muscles of tongue and cheek are at equilibrium which is the “Neutral zone” Prolonged absence of teeth leads to diminished tonicity of skin and orofacial musculature which often leading to sunken cheeks and unesthetic appearance. Cheek plumper helps to enhance facial appearance by restoring its normal form. This case describes the management of a completely edentulous patient with the help of neutral zone approach for resorbed maxillary ridge and cheek plumper for sunken cheeks.

A NOVEL SIMPLIFIED METHOD FOR REGISTRATION OF NEUTRAL ZONE IN FABRICATION OF COMPLETE DENTURE PROSTHESIS

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Neutral zone refers to that space in the oral cavity where the forces exerted by the musculature of the tongue are balanced with the forces exerted by the buccinator muscle of the cheek laterally and the orbicularis oris muscle anteriorly. The dental profession has always been concerned with equalizing the vertical forces that are delivered by the occlusal surfaces of the teeth, and generally ignore the importance of horizontal forces exerted in the external surface of denture. In case where there is greater ridge loss, there will be small denture base area which results in reduced stability and retention. In such cases the stability and retention mainly depends on correct position of teeth and contour of external surface of denture. This paper will enlighten a simplified technique along with its merits and demerits for fabrication of complete denture prosthesis for patient having resorbed/ flat mandibular ridge.

A SIMPLE APPROACH TO RESIST FRACTURE OF TOOTH SUPPORTED MANDIBULAR OVERDENTURE: A CASE REPORT

JJI M EDAKKALATHUR

AZEEZIA COLLEGE OF DENTAL SCIENCE AND RESEARCH, KOLLAM, KERALA

An Overdenture is a removable dental prosthesis that covers and rests on one or more remaining natural teeth, the roots of natural teeth, and/or dental implants. Overdenture helps to preserve alveolar bone, improves masticatory efficiency, proprioceptive response, retention and stability of denture. In tooth – supported Overdenture the stress concentration is shared between the denture bearing edentulous areas and the abutment teeth. This is particularly advantageous in the mandibular arch, where edentulous ridges resorb at a rate four times greater than that of the maxillary arch. One of the major causes of failure of mandibular Overdenture is the fracture at the site of attachments due to lack of denture thickness in the abutment site. This paper brings light to this area which describes a case report on tooth supported Overdenture with a simple framework that helps in resisting fracture of mandibular denture.

MANDIBULAR RECONSTRUCTION WITH FIBULA FREE FLAP AND PROSTHETIC REHABILITATION WITH IMPLANT SUPPORTED SCREW RETAINED HYBRID PROSTHESIS-A CASE REPORT.

JOTHIPRIYA, AMRITHA.K.M

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This case report describes about the patient who underwent surgical removal of unicystic ameloblastoma and mandibular resection with fibula free flap reconstruction. Fibula-free flaps are an excellent option for the reconstruction of large mandibular defects after trauma, congenital conditions, or tumor removal. Implant supported prosthesis is the ideal treatment option to avoid graft damage due to the usual lack of stabilization of a mucosupported removable prosthesis. Mandibular implant-supported hybrid prostheses have been used for edentulous patients who could not adapt to long-term use of conventional complete dentures. The anterior part of a mandibular hybrid denture is fixed on implants while the posterior part of the denture is extended and cantilevered from implants. This case report illustrates prosthetic phase of the mandibular reconstruction with implant supported hybrid prosthesis.

PROSTHETIC MANAGEMENT OF ATTRITION – A SERIES OF CASE REPORTS

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Severely worn dentition presents unique challenges in the patient management, diagnosis, treatment planning, and restorative methodology. However, a systematized and planned approach facilitates development of optimum oral function, comfort and esthetics. The restorative implications of tooth wear are often complicated by the age of the patient, para functional habits, compromise of conventional fixed restorations and the lack of inter-occlusal space. An optimally created occlusion will be better able to deal with the forces generated in function and parafunction. Our presentation is a compilation of different scenarios of attrited dentition and its prosthetic management.

GUNNING SPLINT FABRICATION IN A GERIATRIC PATIENT FOR MANDIBULAR FRACTURE FIXATION

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GDC&H, HYDERABAD

Gunning splint fabrication in a geriatric patient for mandibular fracture fixation . A fracture of the maxillary or mandibular bone requires the affected to undergo a maxillo mandibular fixation for the establishment of pre traumatic occlusion. This process is quite tedious and consumes a considerable period of time before any surgical procedure can commence. Such a situation can be complicated in case the individual with maxillomandibular fracture has sparse or absent dentition; for such cases a splint is fabricated or an erstwhile existing denture is used for maintaining a vertical jaw proportion. Stabilizing such splints to the jaw requires various invasive approaches that can bring into harm's way, adjacent soft tissue vital structures. Gunning splints are fabricated for reducing the fractures(ex:angle ,parasymphysis).Gunning splint is a better option as it provides closed reduction and stabilization of mandibular fracture , thus improving the prognosis.

ENGRAVING THE AESTHETICS AND OCCLUSION IN PARTIALLY EDENTULOUS PATIENT- A CASE REPORT

KIRTI, MEENAKSHI

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Implant treatment has become the treatment of choice to replace missing teeth in partially edentulous area. Dental implants present different biological and biomechanical characteristics than natural teeth. Treatment of partially edentulous patient with implants has many benefits compared to a conventional removable denture including increased patient satisfaction, improved speech, aesthetics, function and self-esteem. The choice of suitable prosthesis for a specific case is determined to a great extent by underlying residual bone volume as well teeth being replaced. The aim of the present case report is to engrave the esthetics and oral rehabilitation of a partially edentulous patient.

REVERSE TORQUE VALUES BEFORE AND AFTER CLEANING CONTAMINATED SCREWS

KOTA. SHIPHRAH ANGEL, K. SUBHASRI

MANUGURU, TELANGANA

Development in Implant materials and techniques have not precluded the abutment screw loosening that appears to be a relatively frequent mechanical complication. The stability of an implant connection may affect the prognostic outcome and it is postulated that the presence of debris on the abutment or screw complex could decrease the friction coefficients of the employed components and affect the preload. The purpose of this study is to analyze the reverse torque of abutment screws following different cleaning methods - cleaning by Steam, Ultrasonic bath, Airotar spray with Steam jet (test groups) and compared with New abutment screw (control group). The results will be statistically analyzed and formulated.

TWO-PIECE OBTURATOR

KOTTEM SUPRAJA

NARAYANA DENTAL COLLEGE, NELLORE, ANDHRA PRADESH

Maxillofacial defects acquired after a surgical procedure that diminish the quality of life. Prosthodontic rehabilitation of such defects are difficult and is influenced by the extent and location of the defect. These prostheses are intended to completely obturate the defect and restore both esthetics and function. One such prosthesis is obturator, which is used to close the palatal defect in a dentate or edentulous mouth. Numerous techniques of fabrication of these obturators have been mentioned in the literature from time to time. However, the present case report describes a 42 year old male individual who had undergone maxillectomy due to Mucormycosis and the detailed procedure of fabricating a hollow bulb two-piece obturator.

SALVAGING THE PERIODONTICALLY COMPROMISED TEETH BY DOUBLE-CROWN RETAINED PARTIAL REMOVABLE PROSTHESIS FABRICATED BY CAD-CAM TECHNIQUE- A CASE REPORT.

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Overdenture is defined as any removable dental prosthesis that covers and rests on one or more remaining natural teeth, the roots of natural teeth, and/or dental implants. For overdentures, the golden statement by MM DeVan- “Perpetual preservation of what remains is more important than meticulous replacement of what is missing” still holds true. Bone being a dynamic tissue, follows Wolff law – “Disuse or loss of mechanical stimulation causes bone loss”. Within the physiologic limits, when tensile stress falls on abutment teeth in an overdenture, it stimulates bone formation, thereby preserving bone. Telescopic overdenture enhances retention, stability, support than a normal overdenture. It also enhances phonetics and improves masticatory efficiency as proprioception feedback mechanism is maintained. Telescopic overdentures can even be given in periodontally compromised cases with 3 or more teeth present. Moreover patient has psychological satisfaction of retaining teeth. Use of CAD-CAM technology in fabrication of telescopic overdenture saves time, gives preciseness to the fit, lessens the risk of deviation from planned geometry by restricting the overdenture to single path of insertion and also the risk of microporosities in overdenture framework is minimized. Microporosities increases the retention forces more than required, this may weaken the peridontium. The following case report describes the procedure for fabricating a telescopic overdenture by CAD-CAM technique.

ASSESSMENT AND EVALUATION OF ERRORS IN TOOTH PREPARATION BY UNDER GRADUATE STUDENTS - AN INSTITUTIONAL BASED IN VITRO STUDY

KRISHNA REDDY.A, JYOTHSNA KRISHNA MURTHY

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AIM: To assess the errors made during preclinical tooth preparation by the undergraduate students of Meenakshi Ammal Dental College and Hospital, Chennai. **OBJECTIVES:** To understand the reason, nature and frequency of the errors occurring during tooth preparation done by undergraduate dental students during their preclinical practice. **MATERIALS AND METHODS:**

- A total of 100 samples were collected from the undergraduate students.
- All the samples were upper right central incisors (11) typodont teeth, prepared to receive a metal ceramic crown.
- All the samples were prepared by mounting the typodont (NISSIN Typodont Jaw Model) on a phantom head simulator.
- All the preparations were made as freehand preparations.
- The following aspects of the preparation will be evaluated:
 1. Facial and palatal reduction .
 2. Occlusal clearance.
 3. Finish line width.
- The evaluation of all the three aspects will be done by studying a cross-section of an impression made on the prepared tooth.
- The impression is made using a hard splint, which was fabricated on the typodont jaw model, prior to tooth preparation, as an impression tray.
- The impression material used is Light body impression material.

RESULT: The measurements and values obtained will be subject to statistical analysis to obtain the final result.

IMPLANT SUPPORTED SINGLE TOOTH REPLACEMENT IN THE ESTHETIC ZONE: A CASE REPORT

KRISHNAPRIYA C S

MMDC, BELAGAVI

Implant placement and restoration to replace single or multiple teeth in the esthetic zone is an especially challenging area for the clinician, particularly in sites with deficiencies in soft tissue or bone. Preservation or creation of a soft tissue scaffold needed to create the illusion of a natural tooth is often challenging and difficult to achieve. Placement of a dental implant in the esthetic zone is a technique- sensitive procedure with little room for error. A subtle mistake in the positioning of the implant or the mishandling of soft or hard tissue can lead to esthetic failure and patient dissatisfaction. This case report presents a clinical situation involving replacement of missing tooth in the esthetic zone.

PROSTHETIC REPLACEMENT OF MISSING HALLUX (GREATER TOE)

KRITI TREHAN

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Loss of toes or fingers is a common finding which occurs mostly due to accident, amputation, congenital absence or malformations. Irrespective of the etiology, the loss of toes has a considerable functional and psychological impact on an individual. In order to alleviate some of these problems, prosthetic restorations are a valuable treatment option. They serve esthetic and sometimes functional purposes, thus improving the patient's quality of life. Prosthesis for such patients must be comfortable to wear, lightweight, durable, cosmetically pleasing and easy to place and remove. Retention of prosthesis is always challenging, especially when there is no remaining stump for mechanical retention. Placement of osseointegrated implants for increased retention would be the ideal treatment option, but the patient may not give consent due to apprehension towards surgical procedures. In such situations, use of adhesives or engaging adjacent anatomical structures assists in retention. This paper describes a case in which a simple, affordable, non-invasive method is used to replace a missing hallux of the left foot of a patient using a custom made silicone prosthesis.

IMMEDIATE ESTHETIC CROWN WITH A FACET OF THE EXTRACTED ELEMENT

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The present report describes a case of implant loading with an immediate temporary crown. The buccal crown surface was removed from the extracted tooth to obtain an aesthetically satisfactory result. After periodontal treatment, tooth appeared proclined and showed Grade 3 mobility, indicating the need for its extraction. The implant was immediately loaded post extraction into the fresh alveolus without a graft and flap procedure. The temporary tooth, which was manufactured using the extracted buccal surface, was a simple, fast, and low-cost procedure that produced an excellent aesthetic outcome.

SCULPTING THE EYE – OCULAR PROSTHESIS A CASE REPORT

LINO PAUL

GOVT.DENTAL COLLEGE THIRUVANANTHAPURAM

SCULPTING THE EYE – OCULAR PROSTHESIS A CASE REPORT. . Of all senses, vision must be the most delightful and eyes are the first features to be noted in any person Defects of the eye may follow removal of a part of or the entire orbit. In the Indian subcontinent, trauma, tumors and congenital absence of orbit are the main causes of such defects. Besides suffering a loss of vision, these patients become esthetically and psychologically handicapped. They feel a lot of embarrassment and are not well accepted in society. Not all such defects are amenable to surgical correction. In such cases, a prosthetic eye can prove beneficial. This may involve replacing the entire eye or simply an indwelling eye that replaces the outer scleral portion. Restoring the defect with a silicone- or acrylic-based prosthesis not only restores esthetics but also gives back the lost confidence to the patient.

MULTIDISCIPLINARY APPROACH IN REHABILITATING RESORBED MANDIBULAR RIDGE USING IMPLANT SUPPORTED HYBRID DENTURE.

LOVELY AHUJA,

J.C.D DENTAL COLLEGE, SIRSA

Edentulism is associated with compromised esthetics, functional and psychological complications. Rehabilitation of completely edentulous patient presents a challenge to the dentist. Previously conventional complete denture was the only treatment option for such patients. Many people have lifelong problems with their dentures such as difficulties with speaking and eating, loose denture and sore mouth syndrome. The evolution of dental implant supported prosthesis gives these patients normal healthy life for their functional and esthetic advantages. Implant supported hybrid prosthesis often provide support for the soft tissues of the face when compared to the traditional fixed prosthesis. With the emergence of computer-aided designs and the development of prosthetic materials, soft tissue loss can be easily replaced and even pink interdental papilla can be artificially created. Certain advantages of hybrid prosthesis are as follows: 1. Reduced impact force of dynamic occlusal loads. 2. Less expensive to fabricate. 3. Highly esthetic restorations.

PROSTHETIC REHABILITATION OF AN EDENTULOUS CLEFT LIP AND CLEFT PALATE PATIENT WITH AN ORONASAL COMMUNICATION

MADHU SUDHANA RAO V, K SRAVANTHI

GDC, HYDERABAD

Rosselli Gulienetti Syndrome (RGS), is an inherited genetic disorder, is a form of ectodermal dysplasia. This is a case of completely edentulous RGS with incomplete closure of the roof of the mouth and a cleft lip with palatovelar communication. Oronasal communication has reappeared after reconstructive surgery for cleft lip and palate repair. The presence of an palatovelar communication presents a challenge to maxillary complete denture fabrication because leakage of air from the nasal cavity prevents the formation of an adequate border seal and further absence of anterior portion of alveolar ridge and lip, worsen the retention of the denture. In this case we present an alternative prosthetic solution by integrating a retentive component into a maxillary complete denture.

TIME TO REPLACE? IMMEDIATELY PLACE

MADHUMAITRI PATRA

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. Single tooth replacement with an endosseous dental implant has become an increasingly favoured treatment option; however, bone resorption following tooth extraction is very common and often compromises final restoration. For successful implant treatment adequate quality and quantity of hard and soft tissue is much required. Though studies have shown that post extraction bone loss cannot be prevented but it has been shown that immediate implant placement slows and reduces the rate of bone loss leading to a more esthetic outcome in future. Thus, this is extremely beneficial while dealing with unrestorable teeth in esthetic zone. This case report describes the procedure for an immediately placed implant in the esthetic zone.

PROSTHODONTIC MANAGEMENT OF PAGETS DISEASE IN A COMPLETELY EDENTULOUS ELDERLY PATIENT – A CASE REPORT

MAHESH M

MANIPAL COLLEGE OF DENTAL SCIENCES, MANGALORE

Elderly patients with disorder of bone metabolism causing excessive bone remodeling is identified with Paget's disease. A typical case of maxillary involvement along with clinical, histopathological and radiographic evidence for Paget's disease is reported. Case Report: A male patient of 75 years with complete edentulousness came to the Dept. Prosthodontics MCODS, Mangalore for rehabilitation with complete dentures. On clinical examination of maxillary denture bearing area showed bulbous tuberosities on either side requiring alveoplasty. Occlusal radiograph of maxillary bone showed multiple osteolytic and osteosclerotic areas with generalized loss of cortical bone giving a cotton-wool appearance. Incisional biopsy of 18 region was sent for microscopic evaluation which showed irregular trabeculae of lamellar and woven bone with osteocytes in the lacunae and prominent resting and reversal lines. The trabeculae are intermixed with areas of hemorrhage and scanty connective tissue stroma. Alveoplasty was conducted to reduce the bulbous tuberosities and undercuts. Conventional complete denture fabrication was done to rehabilitate the edentulous area. It should be noted that bone involved in paget's disease is highly susceptible to infection when exposed to oral flora. Treatment for pagets disease usually includes medication to help to regulate bone remodeling, medication to relieve pain, surgery and physical therapy. Prosthodontist should know the features and dental manifestations of this disease and be able to identify and diagnose effectively. Prosthodontic treatment plan should help in catering the needs of health and esthetic requirements of the patient.

PROSTHETIC REHABILITATION OF A MAXILLECTOMY PATIENT: A CASE REPORT

MAHIMAA GUPTA

KGMU, LUCKNOW

Defects in the maxillary jaw can be congenital, developmental, acquired, traumatic or surgical involving the oral cavity and related anatomic structure. Altered function of the remaining tissues occurs due to absence or loss of some or all of the soft palate and / or hard palate. Main problems faced by these patients are regurgitation of water and food through nose and difficulty in speech. To help these patients to overcome these difficulties defect is restored with a prosthesis called as obturators. Obturators require repeated adjustments to conform to the soft tissue changes during various stages of healing. Patient who undergo maxillary resection are rehabilitated in three phases by an obturators that supports the patients through healing. These three phases are immediate temporary surgical obturator, interim obturator , and definitive obturator. This case report describes the prosthodontic rehabilitation of a 55 year old female patient diagnosed with odontogenic myxoma of left maxilla, followed by surgical resection of the tumor. The treatment procedures immediate surgical plate, interim obturator, and definitive obturator fabrication .

LIMITED INTEROCCLUSAL SPACE: A CHALLENGE IN REHABILITATING THE PARTIALLY EDENTULOUS

MANISHA ROY, KOKILA

KVG DENTAL COLLEGE AND HOSPITAL, SULLIA

Limited interocclusal space is a common challenge in prosthetic management of a partially edentulous patient. Drifting, tipping, rotation and supra-eruption of neighbouring and/or opposing teeth are some of the sequelae in long-term edentulous areas. Supra-eruption of opposing teeth and concomitant drop of the alveolar ridge in the posterior region can result in loss of interocclusal space, needed for the fabrication a removable or fixed prosthesis. Regaining the lost interocclusal space must be the priority for successful prosthetic treatment for these cases. The clinical situation and the desires of the patient are critical factors for building up a comprehensive treatment plan. This case report presents a combined prosthetic and surgical approach in order to gain interocclusal distance in a patient with partially edentulous area in the right posterior quadrant. Careful treatment planning and precise surgical management yielded a functionally and aesthetically satisfactory result.

DELINEATING ACCURACY IN FIXED REMOVABLE PROSTHODONTICS USING PRECISION OR SEMI PRECISION ATTACHMENTS – SERIES OF CASE REPORTS

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MAHATMA GANDHI POST GRADUATE INSTITUTE OF DENTAL SCIENCES, PONDICHERRY

Our ever-increasing knowledge of the oral environment, together with technological improvements and good armamentarium, has taken us to give a restoration which is esthetically pleasing and comfortable. This makes it all the more important to reconcile what is actually feasible with the patient's own expectations. There is significant number of patients who could benefit from this treatment option, both short and long term. Implant retained restoration are an option but this is sometimes not possible due to insufficient amount of bone or economic reasons. Redefining Precision or semi-precision attachment has long been considered the highest form of partial denture therapy. An attachment is a connector consisting of two or more parts. One part is connected to a root or tooth and the other part to the prosthesis. Adherence to precision techniques, proper diagnosis and periodic recall of preventative therapy will result in successful treatment and preservation of the patient's existing hard and soft tissues. In this presentation I will discuss a few case reports of patients rehabilitated with various redefined precision or semi precision attachment techniques followed by promising results.

PIEZOGRAPHY: AN INNOVATIVE TECHNIQUE IN COMPLETE DENTURE FABRICATION

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Increasing life expectancy, age-related reduction in adaptability and progressive severe mandibular resorption, all add to the difficulty in achieving prosthetic success. The conventional mandibular denture is usually less retentive than the maxillary one and successful treatment involves the development of lingual retention for the mandibular denture. Several methods considering physiologic function with an objective to enhance denture retention, stability and comfort during mastication have been developed since many decades. Piezography method is a neutral zone technique that utilizes phonetics to record the potential denture space. It is based on the fact that a person swallows up to 2400 times per day and during the entire swallowing teeth comes into contact less than second which can be sum up to less than 40minutes per day. Since, a person speaks more than he involves swallowing, we should follow phonation method to fabricate dentures for more stable denture prosthesis.

DISCLUSION TIME REDUCTION THERAPY: A SOLUTION FOR ORO- FACIAL PAIN

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DIVYA JYOTI COLLEGE OF DENTAL SCIENCE AND RESEARCH, GHAZIABAD

INTRODUCTION: Disclusion time reduction (DTR) is an objective treatment protocol using T-Scan III (digital analysis of occlusion) for treating occlusally activated orofacial pains. Chronic occluso-muscle disorder is a myogenous subset of temporomandibular disorder symptoms. These muscular symptoms are induced within hyperactive masticatory muscles due to prolonged disclusion time, occlusal interferences and occlusal surface friction that occur during mandibular excursive movements. **CASE REPORT :** A 38 year-old male patient presented with a 3-year history of difficulty in opening her jaw and frequent headaches in his temples. He also complained of pain in his jaw, fatigue while chewing, strain behind his eyes, and difficulty in chewing hard foods. Three previous dentists treated her with occlusal splints that she discontinued as appliance therapy did not noticeably reduce his symptoms. **CONCLUSION :** This case report describes a patient treated by DTR therapy, whereby measured pretreatment prolonged disclusion time was reduced to short disclusion time using the immediate complete anterior guidance development enameloplasty, guided by T-Scan occlusal contact time and force analysis.

COMPARATIVE EVALUATION OF ACCURACY OF 2D AND 3D METHODS FOR EVALUATING ALVEOLAR RIDGE DIMENSION PRIOR TO IMPLANT PLACEMENT: AN IN VIVO STUDY

MEHNAMA YOUSUF

VOKKALIGARA SANGHA DENTAL COLLEGE AND HOSPITAL, BANGALORE

Purpose: The aim of the study is to evaluate the alveolar ridge dimensions by cast based ridge mapping measurements, panoramic radiograph, and CBCT. **Materials and Methods:** . The study will be conducted on 15 patients for replacement of edentulous span with dental implant. Width of alveolar ridge will be calculated by Cast based ridge mapping (3 mm and 6mm from the crest of ridge) and height by using panoramic radiograph and values obtained will be compared with that values obtained from CBCT and then discrepancy of 2D and 3D methods will be calculated if it exists.

PROSTHETIC REHABILITATION OF VELOPHARYNGEAL INSUFFICIENCY

MITALI NERURKAR, POOJA PATIL

VASANTDADA PATIL DENTAL COLLEGE, BUDHGAON, MAHARASHTRA

Palatopharyngeal insufficiency induces nasal regurgitation of liquids, hypernasal speech, nasal escape and disarticulations and impaired speech intelligibility. Pharyngeal obturator prostheses restore the congenital or acquired defects of soft palate and allow adequate closure of palatopharyngeal sphincter. This paper highlights prosthesis for patient with velopharyngeal defect and along with soft hard palate.

SEQUENTIAL OBTURATORS - RESURRECTION OF FUNCTION AND FACIAL AESTHETICS: A CASE REPORT.

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D. Y. PATIL DENTAL COLLEGE AND HJOSPITALS, NEW MUMBAI

'It is God given right of every human to appear human'. A maxillofacial defect cause facial disfigurement and affects the quality of life of the patient. The rehabilitation of a maxillectomy patient suffering from squamous cell carcinoma can pose a major challenge to the clinician due to the communication between the oral cavity and nose or maxillary sinus. The maxillary defects may lead to anatomical and functional deformity of the maxillofacial region producing difficulty in speech, mastication and deglutition. In such cases, the goal of prosthodontics is to restore oral and extraoral structures along with restoration of the normal functions by a prosthesis called the obturator. The obturator is a plate which closes an opening or defect of the maxilla as a result of removal of maxilla partially or completely from tumor mass. This case report presents a journey to the rehabilitation for squamous cell carcinoma patient with the placement of a surgical stent immediately post excision of the tumor, to an interim obturator prosthesis, followed by a definitive hollow bulb obturator prosthesis, thus improving patient quality of life.

LIQUID SUPPORTED DENTURE - A BOON TO FLABBY RIDGES

MONISHA KP

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The ideal properties of a denture are adequate rigidity on polished surface to bear masticatory forces and at the same time, flexibility and softness on the tissue surface for proper and even distribution of masticatory forces. The problem with conventional denture is rigidity of tissue surface which leads to uneven distribution of load. This drawback even worsens in the case of flabby, atrophic ridges. Flabby tissues interferes with the denture support. So liquid supported denture is a better treatment option. This paper describes the management of flabby ridges by the use of liquid supported dentures. Liquid supported dentures allows continued adaptation and helps in the distribution of stresses uniformly and evenly and eliminates the disadvantages of conventional denture design in flabby ridges.

PRESENT AND FUTURE PROSPECTUS OF LAMINATE VENEERS: AN OVERVIEW AND A CASE REPORT

MOR DEEPIKA JEEVAN, TRUPTI MAKVANA

COLLEGE OF DENTAL SCIENCE, AMARGADH, BHAVNAGAR

Laminate veneers are a conservative treatment of unaesthetic anterior teeth. Based on their strength, longevity, conservative nature, biocompatibility, and aesthetics, veneers have been considered one of the most viable treatment modalities since their introduction in 1983. The use of adhesive technologies makes it possible to preserve as much tooth structure as is feasible while satisfying the patient's restorative needs and aesthetic desires. With indirect restorations, clinicians should choose a material and technique that allows the most conservative treatment; satisfies the patient's aesthetic, structural, and biologic requirements; and has the mechanical requirements to provide clinical durability. The professional approach of new techniques augmented with advanced dental materials, enabling the clinicians to achieve aesthetic improvements and aesthetically pleasing results. The clinical success of laminate veneers depends on the suitable indications of the patients and the correct application of the materials and techniques available for that, in accordance with the necessity and goals of the aesthetic treatments. The laminate veneers remain the prosthetic restoration that best compiles the principles of present - day aesthetic dentistry. This "Substitute enamel" now brings us closer to achieving the goals of prosthodontics to replace the human enamel to its proper structure, shape and color with this "Bonded Artificial Enamel. Advanced CAD - CAM and 3D printing system used for veneer fabrication have changed the perception of aesthetic in present day practice. This scientific paper describes the newer materials, methods and technologies available for present day practice and also reports the case treated with a novel methods.

MANAGEMENT OF DEFICIENT BONE AT IMPLANT SITE: A CASE REPORT

MUDITA SOOD

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Dental implants have come to be accepted as the first choice of treatment for replacement of missing teeth. Patients have become aware of their prosthetic needs and have high functional and aesthetic demands. The long term functional survival of implants can be adversely affected if there is deficient bone at the site of the missing teeth, which can be due to various reasons such as immediate extraction site, advanced periodontal disease, transalveolar extraction, bone resorption after loss of tooth etc. In such cases, dental implant placement, and its survival thereafter, cannot be made possible without horizontal or vertical augmentation procedures for hard tissue reconstruction. Guided bone regeneration is the most commonly used procedure for bone augmentation. This technique predictably attains regeneration of new bone with the use of occlusive membranes which provide a mechanical barrier to prevent the ingress of non-osteogenic cells into the osseous defect. The present paper discusses a case of guided bone regeneration with simultaneous implant placement using bone graft material and barrier membrane. The missing tooth has been successfully replaced by an implant supported crown. The various parameters for the success of an implant at the site of guided bone regeneration have been discussed briefly.

ALL ON FOUR

MUNEENDRA THANDAVA, ATHIRA M R

A J INSTITUTE OF DENTAL SCIENCES, MANGALORE

The “All-on-Four” concept is based on the placement of four implants in fully edentulous jaws to support a provisional, fixed, and immediately loaded full-arch prosthesis. Combining tilted and straight implants for supporting fixed prostheses can be considered a viable treatment modality resulting in a simpler and less time-consuming procedure, in significantly less morbidity, in decreased financial costs and a more comfortable post-surgical period for the patients. We present a case report of a female patient aged 33 years, mentally challenged, with partially edentulous maxillary arch and completely edentulous mandibular arch with impacted canine with respect to 43; with the treatment plan being immediate extraction of impacted canine and all on four implant in lower. Two straight implants in the anterior and two angled implants in the premolar region.

REHABILITATION OF DEFICIENT & TRAUMATISED MAXILLA WITH RP5 PROSTHESIS -A CASE REPORT.

MUTTAM MOUNIKA

ST. JOSEPH DENTAL COLLEGE, DUGGIRALA, ELURU

The transmission from dentulous to edentulous state poses different challenges to the patient as well as the clinician. Edentulous patient having deficient bone often experiences problems with their conventional dentures. Implant supported overdenture has become a boon for the patients facing edentulism as it alleviates the challenges posed by removable complete denture prosthesis. It offers many practical advantages such as reduced rate of bone resorption & reduced prosthesis movement. This case report successfully rehabilitates a deficient & traumatized maxilla with RP5 prosthesis which renders the increase in the patient satisfaction, improved speech ,aesthetics, function and self esteem. Keywords: Trauma, Deficient Ridge, Implant Supported OverDenture.

PRECISION REDEFINED IN MANAGING THE RESTORATION OF A COMPROMISED MAXILLARY ANTERIOR REGION: A CASE REPORT

N REKHA GOVINDAN

JSS DENTAL COLLEGE AND HOSPITAL, MYSORE

Precision redefined in managing the restoration of a compromised maxillary anterior region: A Case report. Accurate placement of dental implants for the fixed replacement of missing teeth in the aesthetic zone, especially after trauma when further loss of hard and soft tissue is anticipated due to the impact of the trauma and then to load them with aesthetically and functionally satisfying prosthesis is perhaps most challenging to the dentists. This Case Report illustrates the importance of understanding the patient's expectations, diagnosing the condition accurately and then planning the treatment with foresight. The case is about a particularly anxious, exacting young male patient having high expectations. Sequential meticulous execution of the treatment plan is done. Use of stereo lithographic stent, customized tooth colored CAD CAM abutments and prosthesis enhanced the aesthetics of the final restoration and the outcome of the treatment considerably.

EYES ARE WINDOW TO THE SOUL

NARENDRA SINGH

SRI SIDDHARTHA DENTAL COLLEGE, TUMKUR

The loss of the facial structures can have a physical, social and psychological impact on those affected. Maxillofacial prosthesis which restore and replace stomatognathic and associated facial structures with artificial substitutes, aim to improve the patient aesthetic, restore and maintain health of the remaining structures and consequently provide physical and mental well-being. Accurate impressions of these tissue facilitate a close adaptation of the prosthesis to the tissue bed resulting in better potential for movement by patient. Treatment of such cases includes implants and acrylic eye prosthesis. Due to economic factors it may not be advisable in all patients. A modified pre fabricated ocular prosthesis is a good alternative. A case of a modified pre fabricated ocular prosthesis is presented here, which had acceptable fit, retention and esthetic.

FIBER REINFORCED RESTORATIONS

NAVINBHARATHY M, SARANYA T

VIVEKANANDHA DENTAL COLLEGE FOR WOMEN, ELAIYAMPALAYAM, TAMIL NADU

Restorative dentistry is constantly evolving as a result of innovative treatment solutions based on new materials, treatment techniques and technologies, with composite materials being a prime example. The reinforcement of dental resins with short or long fibers has been described in the literature for over 40 years. The advent of fiber reinforcement has further increased the potential uses of composites within restorative dentistry. Fiber-reinforced composite restorations are resin-based restorations containing fibers aimed at enhancing their physical properties. Missing anterior teeth is of serious concern in the social life of a patient. While conventional fixed partial dentures and implant-supported restorations may often be the treatment of choice, fiber-reinforced composite (FRC) resins offer a conservative, fast, and cost-effective alternative for single and multiple teeth replacement. The use of fiber-reinforced composite (FRC) technology in clinical dentistry may solve many of the problems associated with a metal alloy substructure such as corrosion, toxicity, complexity of fabrication, high cost and aesthetic limitation. Moreover, fiber-reinforced composite (FRCs) can be used for active and passive orthodontic applications, such as anchorage units, post-orthodontic tooth retention. The purpose of this paper presentation is to present the clinical cases of single anterior tooth replacement by means of fiber-reinforced composite and acrylic tooth pontic.

MAXIMUM FROM MINIMUM: A CASE REPORT FOR ESTHETIC SMILE ENHANCEMENT.

NIDHI S SHAH

Conventional porcelain restorations required significant tooth reduction to facilitate the material's physical properties, retention, and resistance form, combined with aesthetics. Contemporary material advancements (eg, Thinner Ceramics, powder/liquid porcelains, Direct Composite Veneers, etc) have, however, begun to facilitate the clinician's obligation to provide precision care with minimal removal of healthy dentition. G V Black's principles of retention and resistance form are no longer conflicting concepts and can be redefined using contemporary veneer preparations and adhesive systems. Combined with predictable adhesive technologies and methodologies, clinicians are now equipped to deliver aesthetic restorations with utmost precision while preserving a larger percentage of underlying tooth structures during multidisciplinary treatment. This maintains the patient's health and longevity of his or her natural dentition. A case of smile enhancement is presented with Minimally Invasive Prosthodontic Procedures redefining precision restoration to utmost esthetic results.

EVALUATION OF DIFFERENT BONE MAPPING TECHNIQUES FOR DIAGNOSIS IN IMPLANTOLOGY

NIKHIL N PAWAR

DARSHAN DENTAL COLLEGE AND HOSPITAL, THOOR, RAJASTHAN

. The wide spread application of dental implants with high success rates has made them a common treatment modality in the past two decades. Despite of the predictability of the osseointegration of dental implants, the implantologist has to overcome anatomic limitations as well as restorative demands to achieve precision in planning and surgical positioning of implants. The quality and quantity of bone available at anticipated implant site is of prime importance for prosthetic therapy. Even experienced implantologists are sometimes misled by the apparent bucco-lingual dimension of the maxillary or mandibular ridges. After exposure of the bone, the reality of the resorbed ridge becomes apparent. This unexpected lack of dimensions can result in a sudden change in the treatment program, which was not previously discussed with the patient. Hence during treatment planning for dental implant placement, there is a need for assessment of alveolar bone. Bone evaluation limited to the use of panoramic and or periapical radiographs may be insufficient, as it provides only two-dimensional information about the implant sites. Computed tomography (CT) provides three-dimensional information. The measurement of alveolar ridge dimensions can be accomplished using ridge-mapping technique. The ridge-mapping technique along with panoramic and intraoral radiograph is adequate in cases where the pattern of resorption appears more regular and where mucosa is of more even thickness. This paper aims at presenting different techniques for evaluating the residual bone height, width and quality of bone to provide the implantologist with information to determine the most ideal placement of implant through case report.

FAILURES IN FIXED PARTIAL DENTURES - THE CLINICAL ASPECTS

NIMISHA RAMESH, ATHIRA .M

MES DENTAL COLLEGE, KERALA

Fixed prosthodontic treatment failures can be complex in terms of both diagnosis and treatment planning. Most of the time, complications are conditions that occur during or after appropriately performed fixed prosthodontic treatment procedures. The purpose of this paper presentation is to present regarding the various clinical aspects leading to the failure of fixed partial dentures.

SPECIALLY DESIGNED PROSTHESIS IN FACIAL PARALYSIS PATIENT - A CASE REPORT

NIRMAL SINGH

PUNJAB GOVT DENTAL COLLEGE AND HOSPITAL, PUNJAB

Emphasis on facial esthetics has become an integral part of dental treatment. Prosthetic rehabilitation of a completely edentulous patient no longer confines to only replacement of missing teeth. Aesthetics plays an important role in complete denture treatment. Facial paralysis of permanent nature affects the prosthetic outcome. Providing complete denture therapy to such patients is challenging. This case report has described a simple, effective, innovative and noninvasive treatment alternative to improve facial appearance of patient with facial palsy.

AN IMMEDIATE REHABILITATION WITH HYBRID PROSTHESIS- A CASE REPORT

NISHTHA SINGH, PALLAVI N T

COORG INSTITUTE OF DENTAL SCIENCES, VIRAJPET, KARNATAKA

An implant-supported hybrid prosthesis is an acrylic resin complete fixed dental prosthesis and supported by implants might be a solution in extreme cases that the need of the restoration for esthetics, function, lip support, and speech. It gives a newer opportunity to the patients who are willing for a fixed solution rather than a removable one. This paper aims to present the esthetic and functional prosthetic rehabilitation of a 62 year old patient rehabilitated with implant-supported hybrid prostheses at Coorg Institute of Dental Sciences. Patient presented with the chief complaint of a compromised esthetic and ill fitted complete denture and the patient was willing for a fixed treatment. After clinical evaluations, series of basal implants were placed respectively in the maxillary and the mandibular arches followed by immediate rehabilitation with a hybrid prosthesis. The intra-arch dimension was accurate. The clinical and radiologic findings were satisfactory. A detailed discussion of the clinical and the laboratory steps will be discussed in this paper here. After 3 months of follow up no functional, phonetic, or esthetic problems with the restorations were noted. These case reports suggest that basal implant-supported hybrid prostheses can be a reliable alternative treatment procedure when a porcelain-fused metal fixed restoration does not satisfy a patient's requirements for immediate replacement, esthetics, phonetics, oral hygiene, and oral comfort.

DESIGNING AND FABRICATION OF AURICULAR PROSTHESIS IN A PATIENT WITH CONGENITAL BILATERAL MICROTIA BY ANATOMIC ANCHORAGE METHOD: A CASE REPORT

NITISHA PAL, ASHISH KUMAR RATHORE

GOVERNMENT AUTONOMOUS COLLEGE OF DENTISTRY, INDORE

DESIGNING AND FABRICATION OF AURICULAR PROSTHESIS IN A PATIENT WITH CONGENITAL BILATERAL MICROTIA BY ANATOMIC ANCHORAGE METHOD: A CASE REPORT. The prosthetic rehabilitation of maxillofacial defect may have profound psychological impact on patient. With the rehabilitation of these defects we not only restore one's self image and ability to function and interact in social environment but also give confidence to live a healthy social life. Many patients report with auricular defects resulting from skin cancer, trauma or congenital causes present a reconstructive challenge. Reconstruction may require a combination of surgical and prosthodontic approach. The site, size, age and aetiology of defect as well as patient desire decide the treatment modality. Reconstruction of patient presenting complete absence of ear i.e. anotia still an easier task compare to patient presenting with partial ear defect i.e. microtia because of presence of rudimentary tissues. This case report presents the designing of pattern for bilateral microtia and fabrication of auricular prosthesis using the anatomical anchorage method. Here the implant retained anchorage method was not used considering the age of the patient.

REHABILITATION OF AN EDENTULOUS MAXILLA WITH A FULL ARCH FIXED SCREW -RETAINED IMPLANT SUPPORTED PFM RESTORATION.

NUSRAT JAN

SWAMI DEVI DYAL DENTAL HOSPITAL AND COLLEGE, VILLAGE GOLPURA, BARWALA, HARYANA

The use of osseointegrated implants as a foundation for fixed full-arch prostheses has substantially enhanced the quality of life for edentulous patients. Esthetic and functional rehabilitation of completely edentulous maxillary arch with fixed implant prosthesis is a challenging task. Full mouth porcelain fused to metal restoration provides positive esthetic and functional outcome. This presentation is a case report of a patient with completely edentulous maxillary arch. In stage one; all maxillary remaining teeth were removed. In second stage, seven MIS dental implants were placed. In third stage, impressions were made, cast bar was fabricated and metal framework was clinically tried. PFM crowns were fabricated with screw access channels. Screw access channels were sealed with composite resin. Advantages of this method includes that if, after delivery of the completed restoration, modification is required for any reason, the restoration can be retrieved at any time and then replaced after necessary modifications.

LIQUID SUPPORTED DENTURE: A SMART OPTION FOR FLABBY TISSUE- A CASE REPORT

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Flabby ridge can be defined as a mobile soft tissue which is located on the superficial aspect of the alveolar ridge which mainly arises when an edentulous ridge opposes natural teeth. It is considered a feature of the combination syndrome which mainly occurs in the anterior part of the maxillary arch. Dentures on flabby ridges have compromised retention, stability, and support unless adequate measures for its management are employed. Methods applied for flabby ridge management include surgical removal of the flabby tissue, ridge augmentation, special impression techniques, balanced distribution of occlusal loads and implant therapy. A Liquid-supported denture is a comparatively newer method which is flexible and continuously adapts itself to the mucosa. However, it is also rigid enough to support the teeth during function. It also eliminates the disadvantages of tissue conditioners and soft liners and preserves the remaining tissues as it is. This case report describes the fabrication of a complete denture in which the base is covered with a close-fitting flexible foil to keep a thin film of liquid in its place. This design eliminates the main disadvantages of rigid denture base materials and provides proper retention, stability, support and comfort to the patient.

PROSTHETIC REPLACEMENT OF ACQUIRED DEFECT IN MAXILLA USING CAST PARTIAL OBTURATOR WITH HOLLOW BULB

PARVATHY KAMATH S, JISHA J S

PUSHPAGIRI COLLEGE OF DENTAL SCIENCES, KERALA

Acquired defects are seen mainly following surgery for neoplasm or due to trauma. Surgical resection of neoplasm is done to eradicate the dysplastic tissue. Even though complete eradication of the tumour is achieved the oroantral communication due to the surgery results in hyper nasal speech, fluid leakage into the nasal cavity and impaired masticatory function. Hence the prosthetic rehabilitation of the resected site is the most important procedure. Obturator is one of the prosthesis which is widely used to rehabilitate these defects. If adequate number of teeth are present in the arch a cast partial denture is indicated.

TOOTH SUPPORTED OVERDENTURE: A CONCEPT OVERSHADOWED BUT NOT YET FORGOTTEN

PASHAM SHILPA

GOVT DENTAL COLLEGE AND HOSPITAL KADAPA, PUTTAMPALLI, ANDHRA PRADESH

The concept of conventional tooth/root retained overdentures is a simple and cost effective than the implant overdentures. When few firm teeth are present in an otherwise compromised dentition, they can be retained and can be used as abutments for overdenture fabrication .This helps improve the retention and stability of the final prosthesis significantly .Bone is dynamic tissue. The extraction of teeth results in the initiation of the bone resorption pattern due to loss of periodontium. However ,when tensile stress is received by bone ,additional bone formation takes place due to osteoblasts. Such stress occur when occlusal forces are transmitted to the alveolar bone by the periodontal ligament. This principle helps to preserve bone. The concept of overdentures may not be the elixir, but it is a positive means for delaying the process of complete edentulism and helps in the preservation of bone and proprioception .To top it all, it gives the patient the satisfaction of having prosthesis with his natural teeth still present. This case report presents patients with two different attachments for overdenture i.e magnet retained and ball and socket joint attachments and the results are promising and positive

INTRAORAL WELDING: REDEFINING CONCEPTS OF IMMEDIATE LOADING

PERVEZ COOPER

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One of the greater challenges to the prosthodontist today is the increased expectations of partially or completely edentulous patients. Periodontal diseases are one of the major causes of edentulism today and studies have shown periodontal problems to be more commonly found in the mandibular anterior region. Regular protocol follows extraction of the teeth which is preceded by a healing phase before implant placement during which an interim removable prosthesis is given. Such patients often do not accept rehabilitation with a removable prosthesis for psychological reasons, and thus a permanent and fixed prosthesis is preferred. Intraoral welding is an interesting approach which allows the effective splinting of all of the abutments which in turn splints the implants in a passive manner by welding a titanium bar intraorally, and prevents any micromovements.

PHOTOFUNCTIONALIZATION IN IMMEDIATE DENTAL IMPLANT

PHIBADAHUN SOHMAT

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Photofunctionalization is defined as the treatment of titanium with ultraviolet (UV) light having specific wave length and strength that induces the proven physicochemical and biological effects. Physicochemically, photofunctionalization converts titanium surfaces from hydrophobic to superhydrophilic, decomposes and removes hydrocarbons that are unavoidably accumulated on sufficiently aged titanium surfaces, and optimizes the electrostatic status. Ultraviolet (UV) light treatment of titanium, or photofunctionalization, has been shown to enhance its osteoconductivity in animal and in vitro studies, but its clinical performance has yet to be reported. This clinical case series sought to examine the effect of photofunctionalization on implant success, healing time, osseointegration speed, and peri-implant marginal bone level changes at 2 and 4 months after implant placement. A patient with the maxillary bilateral central incisors to be undergone immediate implant placement is included in the study. One of the implant with identical microroughened surfaces were photofunctionalized with UV light for 15 minutes . Osseointegration speed was calculated by measuring the increase in implant stability quotient (ISQ) at 2 and 4 months post implant placement. Marginal bone levels were evaluated radiographically at 2 and 4 months.

PROSTHETIC REHABILITATION OF A PATIENT TREATED FOR PAGET'S DISEASE - A CASE REPORT

PINKY VINCENT, SREEJA K NANUKUTTAN

GOVT DENTAL COLLEGE, KOTTAYAM

Paget's disease of bone (osteitis deformans) is a condition which shows signs of disregulated bone at the microscopic level, specifically excessive bone breakdown and subsequent disorganized new bone formation. This case report describes the prosthetic rehabilitation of a sixty year old male who had undergone treatment for Paget's disease. Beta crosslaps test was done to determine the prognosis for implant placement. Three implants were placed in maxilla and two in mandible of which one maxillary implant failed. During the healing period, an occlusal splint was given to raise the vertical dimension. After six months, subsequent crown placement and full mouth rehabilitation was performed to restore the patient's esthetics and function.

“A BEAUTIFUL SMILE ALWAYS GIVES DELIGHT” – A CASE REPORT

PONJAYANTHI V, FEMIN DAVID

SREE MOOKAMBIKA INSTITUTE OF DENTAL SCIENCES, KULASEKHARAM, KANYAKUMARI

A beautiful smile always gives delight, however the personality may be falsely interpreted by ugly and impaired teeth. This clinical report describes the oral rehabilitation of a young adult patient diagnosed with amelogenesis imperfecta. Amelogenesis imperfecta is a hereditary condition that affects the tooth enamel without systemic involvement. Teeth can present with alterations in the enamel thickness, color and shape. This anomaly affects both primary and permanent dentition. The specific treatment objective being restoration of masticatory function, esthetic rehabilitation and improved self confidence. Planning and executing the restorative rehabilitation of decimated occlusion is probably one of the most intellectually and technically demanding tasks facing a “prosthodontist”, the goal of dentistry is to increase the life span of the prosthesis which is accomplished through a proper occlusal rehabilitation. Hence in this paper we included systemic approach in rehabilitating a case of amelogenesis imperfecta with metal and metal ceramic restoration to modify occlusion and to improve esthetics.

FULL MOUTH IMPLANT SUPPORTED PROSTHESIS TREATED WITH INNOVATIVE & INTERDISCIPLINARY APPROACH – A CASE REPORT

POOJA PATIL, MITALI NERURKAR

VASANTDADA PATIL DENTAL COLLEGE AND HOSPITAL, SANGLI

FULL MOUTH IMPLANT SUPPORTED PROSTHESIS TREATED WITH INNOVATIVE & INTERDISCIPLINARY APPROACH – A CASE REPORT. Implant supported prosthodontic rehabilitation of total edentulism remains one of the most complex restorative challenges because of the number of variables affect both the aesthetic and functional aspects of the prosthesis. Mock up plays a very important role while designing full mouth prosthesis. This paper highlights mock up driven planning of full mouth implant prosthesis which is simple, quick, improvable, inexpensive and successful.

NON-INVASIVE PROSTHETIC REHABILITATION IN AN ECTODERMAL DYSPLASIA PATIENT: A CASE REPORT

POOJA RANI

COLLEGE OF DENTAL SCIENCES, DAVANGERE

Hypohidrotic ectodermal dysplasia (HED) is a rare ectodermal disease with a systemic expression of a group of rare congenital disorders characterized by abnormalities of two or more ectodermal structures such as the skin, hair, nails, teeth and sweat glands. Oral abnormalities are common and may include hypodontia, oligodontia and shape irregularities in the primary and permanent dentitions. Rehabilitation of the dental arches in patients with HED is a challenge because HED is a multifactorial disease that demands a complicated treatment approach. This case report describes a simplified technique of rehabilitation using fixed prosthetic approach without implant placement. It presents case of a 16-year-old male patient with oligodontia. Hereby, presenting the prosthetic care, observed with improved masticatory capacity. In conclusion, prosthetic management was non-invasive and lead to developmental benefits for the patient.

INTERIM PROSTHETIC MANAGEMENT OF A PATIENT WITH CLEIDOCRANIAL DYSPLASIA:- A CASE REPORT

POURNAMI CR, MANUEL JAMES

MAR BASELIOS DENTAL COLLEGE, THRIKKARIYOOR, KERALA

Cleidocranial dysplasia is an autosomal dominant skeletal dysplasia characterized by hypoplastic/aplastic clavicles, brachycephalic skull, midface hypoplasia, delayed closure of fontanelles, and moderately short stature. Dental manifestations in commonly reported cases include delayed or failed eruption of permanent teeth and existence of multiple supernumerary teeth in both jaws. This case report presents treatment of a sixteen year old female patient with the characteristics of Cleidocranial Dysostosis, like retained multiple deciduous teeth and unerupted permanent teeth and supernumerary teeth. Exfoliation of the patient's deciduous anterior teeth and failure of permanent anterior tooth eruption led to emotional, social, and self-esteem issues in patient. Due to the psychosocial issues, aesthetics was addressed prior to active intervention with orthodontics and after some surgical intervention. An interim overdenture prosthesis was planned to meet the aesthetics concerns of the patient.

PROSTHODONTIC REHABILITATION OF PARTIALLY EDENTULOUS MAXILLARY ARCH WITH CAST PARTIAL DENTURE AND ATTACHMENT SYSTEM- A CASE REPORT

PRERNA SHROT

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The demand and awareness for quality of dental treatment is relatively increasing in today's generation. Esthetically and functionally successful prosthetic rehabilitation requires careful attention and meticulous treatment planning. Partial edentulous arch with distal extension situation put up a challenging job for a prosthodontist to rehabilitate when dental implant placement is not feasible. Thus, the edentulous arch in such cases needs to be rehabilitated using cast partial denture. However, visible component of clasp incorporated in cast partial denture jeopardizes the aesthetics. Hence, association between a fixed partial denture and cast partial denture by means of attachments becomes an important alternative to a conventional clasp-retained cast partial denture. In this case report, the attachment supported cast partial denture will be fabricated for prosthodontic rehabilitation of partially edentulous maxillary arch which amplifies the aspects of retention, stability and particularly esthetics when compared to conventional removable partial.

MODIFIED IMPRESSION TECHNIQUE FOR PATIENT WITH MICROSTOMIA

PRIYANKA THAREJA

GENESIS DENTAL COLLEGE AND RESEARCH INSTITUTE FEROZEPUR, PUNJAB

Conventional custom trays are difficult to use to make impressions for patients with microstomia. Several types of split custom trays have been reported to solve such situations. This paper describes a method of fabricating mandibular and maxillary sectional trays for complete denture fabrication and modified impression technique for a 50-year-old female patient with limited oral opening. Two pieces of a maxillary and mandibular custom trays can enhance its stabilization during border molding and final impression making. Thus, it helps in fabricating a better fitting complete denture for such patients and also makes the impression procedure easy for patient with limited opening as the tray can easily be inserted in two pieces.

MANAGEMENT OF MALPOSED DENTAL IMPLANT IN THE ESTHETIC ZONE

PRIYATHA PURUSHOTHAM, DEEPTHI VENUGOPALAN

MES DENTAL COLLEGE, KERALA

A dental implant may be positioned unfavorably for a variety of reasons. Solutions involve various prosthetic alternative treatments or surgical approaches, such as removing the implant and replacing it with bone grafting. This case report describes the use of a segmental osteotomy for repositioning a malposed dental implant.

COMPLETE DENTURE OBTURATOR PROSTHESIS WITH FUNCTIONAL SALIVA RESERVOIR : A CASE REPORT

RACHANA CHAUDHARY

ARMY DENTAL CENTRE RESEARCH AND REFERRAL, DELHI CANTT

Oral cancer is the most commonly occurring malignancy in India. Patients who receive radiotherapy experiences various complication and xerostomia is one such complication. Complete dentures are poorly tolerated in patients with xerostomia and this condition becomes even more worse in patients with maxillectomy defects. This paper presents a case report of a 68 years old male patient who was referred to the department of prosthodontics for fabrication of surgical obturator preoperatively. Patient was diagnosed with squamous cell carcinoma and underwent maxillectomy of the left side. He also underwent radiotherapy for two years before surgery. Surgical obturator was made preoperatively and was delivered on the day of surgery. Regular follow up was done and modifications were done accordingly. After two months of satisfactory healing interim obturator was delivered to the patient with better fit and esthetics. After 6 months of complete healing definitive obturator was made in poly methyl methacrylate. It was a challenge to achieve proper retention, stability and support in completely edentulous maxillary arch with maxillectomy defect. Mandible was also completely edentulous with highly resorbed ridges with history of osteoradionecrosis. Fabrication of complete denture with hollow bulb palatal obturator was made using the same basic principles as used in the complete dentures. Functional saliva reservoir was incorporated in the denture to provide sustained release of salivary substitute. In this patient we were able to restore the patient with a prosthesis that enabled the patient with normal speech, swallowing, mastication and improved his QOL.

REDEFINING 'HOBO' DIGITALLY !

RADHIKA JAIN

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Introduction: Full mouth rehabilitation is one of the most precise work-up often done to treat severely worn-out dentition, developmental anomaly and TMJ disorder. It becomes even more complex when multiple factors have to be taken into account: vertical dimension, occlusal contact pattern, esthetics and phonetics. This clinical report describes full mouth rehabilitation of a patient with collapsed bite using HOBO's twin stage concept. However, to ensure optimum precision, digital methods were adopted for temporisation and final prosthesis fabrication. Materials and Method : A 52 year old reported with a chief complaint of increased discomfort in the TMJ region since the last two years. After thorough treatment planning, it was decided to reorganise the occlusion employing the HOBO concept. The patient was made to wear a centric-stabilising splint at the increased vertical dimension. Post- tooth preparation, first stage temporisation was done at the existing vertical. Diagnostic wax-up was done according to Condition 1 and condition 2 values. In order to establish a smooth and predictable workflow, the wax-up was scanned with an extra-oral digital scanner. The second stage temporaries were fabricated by CAD-CAM milling of acrylic blocks. They were seated intra-orally with minimum chair side modification. Once finalised, these temporaries were scanned and simulated in the final prosthesis thereby eliminating out errors developing due to processing and manual techniques. Conclusion : Adoption of digital techniques makes the entire process quicker and precise together, thus ensuring predictability.

CAST PARTIAL FRAMEWORK WITH OBTURATOR-A REHABILITATION OF CONGENITAL MAXILLARY DEFECT: A CASE REPORT

RAFAT ABDUL HAI KHAN

ACPM DENTAL COLLEGE DHULE, MAHARASHTRA

A MAXILLOFACIAL PATIENT'S QUALITY OF LIFE IS HAMPERED. AN OBTURATOR IS A MAXILLOFACIAL PROSTHESIS USED TO CLOSE A CONGENITAL OR ACQUIRED TISSUE DEFECT PRIMARILY OF HARD PALATE OR CONGENITAL ALVEOLAR OR SOFT TISSUE STRUCTURE. A PATIENT AGED 35 YEARS REPORTED WITH CONGENITAL MAXILLARY DEFECT. PRIMARY IMPRESSION WAS MADE FOLLOWED BY CUSTOM TRAY FABRICATION. THE HOLLOW DEFECT WAS RECORDED WITH HELP OF IMPRESSION COMPOUND & RUBBER BASE MATERIAL. MOUTH PREPARATION WAS DONE AND CAST PARTIAL FRAME WORK WAS DESIGNED. TRIAL OF FRAMEWORK WAS DONE FOLLOWED BY JAW RELATION AND TRY-IN. FINAL CAST PARTIAL DENTURE WITH OBTURATOR WAS INSERTED. THIS REPORT AIMS FOR PROSTHETIC REHABILITATION OF CONGENITAL DEFECT OF MAXILLA BY THE HELP OF CAST PARTIAL DENTURE WITH OBTURATOR WHICH RESULTED IN ENHANCED QUALITY OF LIFE WITH OPTIMAL AESTHETICS AND FUNCTIONAL ADEQUACY.

OVERHAULING IMPLANT THREAD EXPOSURE – A CASE REPORT

RAHUL B

THAI MOOGAMBIGAI DENTAL COLLEGE AND HOSPITALS, CHENNAI, TAMIL NADU

Implant is considered to be one of the most successful and safe form of dental treatment, but like other dental procedure this treatment modality also has some form of failures, advantages and disadvantages. Failures can range from failure during placement or complete failure. To further improve the quality and longevity of the treatment given etiologies and factors associated with implant failures should be considered. with prevailing dental implant treatment challenges may occur one of them is implant thread exposure which might require unconventional treatment option because exposed thread in osseointegrated implant exposed threads are difficult to clean and tend to accumulate plaque and calculus, they are unaesthetic, and may not be amenable to regenerative therapy. In this case implant treads were exposed after first stage surgery and a technique was used to reduce the etiologic factor for the thread exposure.

BEAUTIFYING SMILES IN A DIGITAL WAY - A CASE SERIES

RAJAT LANZARA

ARMY, FARIDABAD

Smile is a person's greatest beauty asset. Face acts as a primary focal point where a large share of attention is directed towards mouth and teeth. But various dental disease and discoloration or staining of teeth can adversely affect the smile. Rehabilitating such teeth with Laminate Veneers can beautify smile and enhance the confidence in an individual. Smile designing in Prosthodontics is a well-known procedure where contour, color and position of teeth is integrated with facial forms and features. Digital smile design softwares are a multi-use conceptual tool in smile designing that can strengthen diagnostic vision, improve communication, and enhance predictability throughout treatment. These tools allow for careful analysis of the patient's facial and dental characteristics along with many critical factors. The use of CAD/CAM technology has allowed the fabrication of ceramic restorations efficiently and with predictable results. Lithium disilicate is a type of glass ceramic material that can be used for the fabrication of laminate veneers to achieve excellent cosmetic results. Hence, this paper will present a case series showing a clinical protocol for rehabilitation of anterior teeth using Digital Smile Design software and CAD/CAM made veneers.

PROSTHETIC REHABILITATION OF MANDIBULECTOMY PATIENT : A CLINICAL REPORT

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The mandible is the key bone involved in face esthetic, mastication, and speech. Surgical resection of the mandible (known as a mandibulectomy) is often performed for tumors of the head and neck area, which should be followed by oral rehabilitation (i.e., occlusal adjustments and replacement of missing teeth and/or soft tissues, if involved). The treatment of oral tumors such as squamous cell carcinomas may require mandibular resection to secure adequate margins. Segmental resection of the mandible leads to significant patient illness if not properly managed. Mandibulectomy can lead to loss of mandibular support to the teeth, inadequate mastication, impaired speech and disfigurement of the face. Loss of the continuity of the mandible destroys the balance and the symmetry of mandibular function, leading to altered mandibular movements. Due to undergoing surgery or trauma results in mandibular deviation towards the defect side resulting in loss of occlusion on the unresected side. This imparts greater effect on patients over all functioning, nutrition, mastication and speech. This case report describes prosthodontic management of a patient who has undergone hemi-mandibulectomy; provided mandibular guide flange prosthesis. The prosthesis helps patient moving the mandible normally, without deviation during functions like speech and mastication.

THE ROLE OF NANOPARTICLES IN PRECISION

RAMNATH REVANKAR

SHARAD PAWAR DENTAL COLLEGE, WARDHA

Nanotechnology is broadly used in our day to day life including its use in medicine. Using nanotechnology, it is easier to analyze and manipulate atoms, chemical bonds and molecules present between various compounds. Nanotechnology is used in the dental field as nano dentistry. Nanostructures are used not only in innovations but also in diagnosis of dentistry. Some nanoparticles are used for oral disease preventive drugs, prostheses and for teeth implantation. Nanomaterials further deliver oral fluid or drugs, preventing and curing some oral disease and maintaining oral health care. Many nanocomposites composed of nanomaterials and traditional metals, ceramics, resin, or other matrix materials have been widely used in prosthodontics because their properties like modulus of elasticity, surface hardness, polymerization shrinkage, and filler loading were significantly increased after the addition of the nanomaterials. So this paper presents the use of various nanoparticles that modify the surface properties and thereby enhances the precision in dentistry mainly in the field of prosthodontics.

REDEFINING PRECISION- ATTACHMENT RETAINED PARTIAL DENTURES –A SERIES OF CASE REPORTS

RAMYA D

MAHATMA GANDHI POSTGRADUATE INSTITUTE OF DENTAL SCIENCES, PONDICHERRY

The presence of natural teeth in maxillary and mandibular arches can never be substituted equivalently with any kind of artificial prosthesis. Although every patient is keen to get his missing teeth replaced by fixed prosthodontic option like implants, all the patients cannot afford the cost. A few who can afford may have limitations like systemic diseases, or the anatomical considerations may contraindicate the dental implant options. A few may prefer quicker and shorter treatment modalities due to lack of time. For all those who may not be able to get their missing teeth replaced by implant prosthesis, attachment retained partial denture is an alternative choice which is more durable and satisfactory to the patients. The use of attachments offers a variety of solutions to challenge the balance between the functional ability and esthetics. Such prostheses are called attachment retained partial dentures. The principle of their function is to distribute the masticatory forces to the wide area thereby reducing the damage to the abutments, soft tissues and bony ridges in addition to improved esthetics and proprioception. This presentation showcases a series of case reports which uses a cheaper, but effective way to provide the best treatment to the patients.

SPECIAL IMPRESSION TECHNIQUES & BALANCING OF OCCLUSAL LOADS IN THE MANAGEMENT OF FLABBY RIDGE: A CASE SERIES

RASHMI SINGH, VEDASHREE NATU

D. Y. PATIL DENTAL COLLEGE, NAVI MUMBAI

A fibrous or flabby ridge is a superficial area of mobile soft tissue affecting maxillary and mandibular alveolar ridges. It can develop when hyperplastic soft tissue replaces the alveolar bone and is commonly seen in maxillary anterior region of long-term denture wearers. Dentures on flabby ridges have compromised stability, support & retention. Masticatory forces can displace mobile denture bearing tissue leading to altered denture positioning and loss of peripheral seal. Methods applied for flabby ridge management includes surgical removal & augmentation, special impression technique and balanced distribution of occlusal loads. Making a definitive impression of edentulous arch can be challenging when residual ridges present with less than ideal condition such as flabby ridges. Mucosa over the alveolar ridges of totally edentulous patients is with varying thickness and mobility and is distorted at the time of impression making. This distortion duplicated in the finished denture can cause inflammation and instability of the denture, unless adequate measures for its management are employed. The purpose of this case series is to present management of flabby ridge patients with various special impression techniques and occlusal schemes.

CAD- CAM DENTURES - WINDOW TO DIGITAL AGE

RAUSHAN KUMAR, RAFI AHMED

MITHILA MINORITY DENTAL COLLEGE, BIHAR

Current advances have resulted to the incorporation of computer aided design/computer aided manufacturing (CAD-CAM) technology into the fabrication of dental restorations including complete dentures. The initiation of CAD/CAM technology in complete denture fabrication has directed conventional prosthesis to evolve into a modern era of removable prosthodontics after nearly more than 8 decades of minimally altered methods and protocols to fabricate complete dentures. The complexity of CD fabrication procedure is the primary reason, why digital engineering has become available recently for CD prosthodontics compared to other fixed prosthodontic restorations. Commercially available CAD/CAM denture systems are expected to improve upon disadvantages associated with conventional fabrication by reducing five-appointment process to a two-appointment technique whereby impressions, interocclusal records and tooth selection can be completed in one appointment following which dentures are fabricated using CAD/CAM technology at second appointment.

SPEECH ANALYSIS IN PATIENTS AFTER PROSTHETIC REHABILITATION

RENI ELIZABETH MAMMEN, SUKANYA SARANGI

S.C.B. DENTAL COLLEGE, CUTTACK, ODISHA

Prosthetic restoration of maxillary resections generally strives to achieve an effective separation of the oral and nasal cavities that is esthetic and assists the psychosocial adjustment of the patient. Examination of the effects of palatomaxillary resections is important from a speech and prosthetic standpoint because speech sounds are produced by approximating the mandible and tongue to the maxillae (fixed anatomic structures). To address this possibility, the acoustic speech patterns of maxillofacial surgery patients were examined before and after prosthetic reconstruction. One approach that may be taken to evaluate the effectiveness of the separation of oral and nasal cavities by a maxillary prosthesis is to examine speech, evaluating the effectiveness of a maxillary prosthesis is to examine whether these nasal resonances are eliminated (or reduced) following prosthetic restoration. Speech recordings were taped under two types of speaking conditions: preprosthesis and postprosthesis by subjectively and objectively

RESTORING THE FACIAL AESTHETICS IN COMPLETELY EDENTULOUS PATIENTS USING CHEEK PLUMBER DEVICE: A SYSTEMATIC REVIEW

RESHMA RAJU, MERLIN RIYA MATHEW

ST. GREGORIOS DENTAL COLLEGE, CHELAD, KERALA

Aesthetics play an important role in today's world. The loss of facial muscle tonicity is of great concern in treating completely edentulous patients. Sunken cheeks are the major consequences of flaccid facial musculature and can increase person's age in appearance. The facial aesthetics can be restored by the use of cheek plumbing appliance. Conventional cheek plumbers were not used commonly due to its increased weight. Thus, detachable plumber prostheses are more beneficial. In a detachable cheek plumber, plumber part is attached to the conventional complete denture. This paper reviews about the different attachment techniques employed for retaining cheek plumbers in complete denture. Author: Reshma Raju. Title: Restoring The Facial Aesthetics In Completely Edentulous Patients Using Cheek Plumber Device: A Systematic Review.

**REDEFINING RETENTION OF IMPLANT SUPPORTED MANDIBULAR OVERDENTURE WITH
EQUATOR ATTACHMENT SYSTEM: A CASE REPORT**

RINU THOMAS, SWATI JAIN

THE OXFORD DENTAL COLLEGE AND HOSPITAL, BENGALURU, KARNATAKA

The quality of life of edentulous patients rehabilitated with complete removable prosthesis has been compromised because of lack of stability and retention particularly in mandibular ridge. In 2002 the McGill consensus statement established first choice standard care for treating edentulous patients: “overdenture supported by two osseointegrated implants placed in canine region”. The general acceptance of this type of treatment has led to the advent of a wide range of anchorage systems that are constantly evolving in design to meet the needs of both patients and clinicians. The OT Equator system is one of the recent line of low profile castable and direct implant overdenture attachment. It is the smallest system available in the market which offers multiple solution for treatment planning when vertical space is limited. Hence this paper is intended to present a case rehabilitated with two implant supported overdenture in the canine region with equator attachment system.

MAXILLARY OBTURATOR PROSTHESIS: CASE SERIES

RITWIK TYAGI

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Maxillary defects are created by surgical treatment of benign or malignant neoplasms, congenital malformation and by trauma. The size and location of the defects influence the degree of impairment and difficulty in prosthetic rehabilitation. Lack of support, retention, and stability are common prosthodontic treatment problems for patients who have had a maxillectomy. A prosthesis used to close a palatal defect in a dentate or edentulous mouth is referred to as an obturator. The obturator prosthesis is used to restore masticatory function, improved speech, deglutition and cosmetics for maxillary defect patients. This paper presentation will discuss few case reports for the rehabilitation of the patients with maxillary defect.

“BRIDGING THE GAP WITH PRECISION”

RUCHIKA RAJESH MANDHANE

SHARAD PAWAR DENTAL COLLEGE, MAHARASHTRA

Smile is one of the most important facial expressions and is essential in expressing friendliness, agreement and appreciation. Loss of natural teeth in anterior region affects the smile and thus affecting the self confidence of patient. Loss of teeth compromises the functional, aesthetics and phonetics demands by patient. The patients are in the need of teeth not only for mastication but also for appearance. Our goal for such patients must be to fulfil the requirement of patient with precision as well as long term success of prosthesis. Aesthetics and functional demands in restoring of this particular area have always been a major factor of choosing the treatment available. The current scenario in dentistry proposes several treatment modalities such as implant supported prosthesis, conventional fixed partial prosthesis and removable prosthesis. The aim of this paper is to highlight the various treatment options for restoration of missing anterior teeth.

IMPLANT SUPPORTED PROSTHESIS FOR SEGMENTAL MANDIBULECTOMY: A CASE REPORT

RUCHIR KALRA

A B SHETTY MEMORIAL INSTITUTE OF DENTAL SCIENCES, MANGALORE

Prosthetic rehabilitation of a patient who is suffering from a mandibular defect, due to a benign or malignant tumor, should be aimed at improving the quality of life of the patient. The conventional biomechanical principles of designing a complete denture or a removable partial denture may not suffice to provide adequate stability, retention and support. For the same purpose, endosseous dental implants may be used which prove to be advantageous when compared to conventional removable partial denture design. This case report describes the treatment of a young female patient suffering from an odontogenic myxoma, who was treated using endosseous implants post resection.

A HOLLOW COMPLETE DENTURE FOR SEVERELY RESORBED MANDIBULAR RIDGE; AN INNOVATIVE AND SIMPLIFIED TECHNIQUE.

RUKSANA

GOA DENTAL COLLEGE AND HOSPITAL, GOA

Prosthetic rehabilitation of severely atrophic ridges has always been an ordeal for the clinician due to decreased support, stability and retention. Because of severe resorption the restorative space between maxillary and mandibular residual ridges is increased. Rehabilitation in such cases results in increased height and weight of the prosthesis further compromising its retention and stability. This in turn overloads the underlying hard and soft tissues exacerbating ridge resorption. In order to break this vicious cycle, the weight of the prosthesis needs to be reduced which can be achieved by making hollow prosthesis. This case report describes a novel technique of fabricating a hollow mandibular complete denture.

ASSESSMENT OF OCCLUSION IN TMD PATIENT USING T-SCAN SYSTEM- A CASE REPORT

S. NITHYA, MONIDIPA BANERJEE

RAJIV GANDHI COLLEGE OF DENTAL SCIENCES, BENGALURU, KARNATAKA

Assessment of occlusion in TMD Patient using T-Scan system- a case report. TMD patients suffer from debilitating migraines, muscle aches, and neck pain. For years, dentists have had to use a large amount of guesswork in diagnosing dental occlusion. Imprecise tools such as articulation paper, waxes, and pressure indicator paste were all that was available to assess the forces of the bite with the muscles and joints of the head and neck. Most of these methods are not sensitive enough to detect simultaneous contact, and none measure both biting time and force - critical components in diagnosing TMD/TMJ. With T-Scan, a computerized bite scan, shows us precisely which bite areas are dominant. Dominant bite areas are pressure points which can cause mild to severe ear pain, neck pain, or jaw pain and can trigger headaches and migraines. We can identify early interferences that are the root cause for many of these symptoms and eliminate them. In this system, Real-time video records the bite from first contact to full force loading, 2D and 3D mapping displays the force-per-tooth data and force chart reveals disclusion timing and bilateral simultaneity. Thus, T-Scan is a good tool for the assessment of occlusal discrepancies and can be useful during both treatment planning and the follow-up period. This study is to analyze the variability in distribution of occlusal loading forces and its correction in the management of Temporomandibular disorder patient using T-Scan.

FROM BASICS TO SUCCESS: IMPLANT BIOMECHANICS

SAKSHI NEMA, CHETNA SEN, RAVI PRAKASH TIWARI

HITKARINI DENTAL COLLEGE AND HOSPITAL JABALPUR

The main purpose of the dental implant is to restore masticatory functions as well as aesthetics. This can be achieved if the placed implant has healthy prognosis. In order to predict or achieve a successful implant placement, understanding its biomechanics is very important. Biomechanics is the response of the tissues surrounding an implant in reaction to the forces applied during loading as well as after the placement of implant. It is essential to understand the basics involving various forces which are being delivered that might lead to implant failure. These factors contribute to longevity of implant performance. This table-clinic is presented in order to explain the basic concepts of implant biomechanics in a simple manner.

OCCUSAL GUIDING FLANGE PROSTHESIS FOR MANAGEMENT OF HEMIMANDIBULECTOMY- A CASE REPORT

SANGEETA MADAN, RAHUL JAINER

ITS DENTAL COLLEGE, KATHAL

Benign or malignant tumor of the mandible is most commonly treated by surgical resection of the mandible. Depending upon the location and extent of the tumor in the mandible, various surgical treatment modalities like marginal, segmental, hemi, subtotal, or total mandibulectomy can be performed. Mandibular discontinuity defects present a major challenge to the rehabilitation team and to maxillofacial prosthodontist. Discontinuity of mandible after resection destroys balance and symmetry which leads to altered mandibular movements and deviation of the residual fragment towards the defective side. Variety of materials and techniques have used for the construction of prosthetic replacement of the acquired surgical defects. This case report describes prosthodontic management of a patient who has undergone hemi-mandibulectomy with mandibular guide flange prosthesis. This prosthesis aids in moving the mandible normally without deviation during functions like speech and mastication.

SMILE ENHANCEMENT WITH MINIMAL PREPARATION

SEEMA RATHI, ABHISEK CHOWDHURY

DR R AHMED DENTAL COLLEGE AND HOSPITAL, KOLKATA, WEST BENGAL

BEAUTY IS POWER; A SMILE IS ITS SWORD (JOHN RAY). In today's dental practice, increasing demand of aesthetics and patient expectation for a natural looking smile, have posed a big challenge to dentist, while correcting the spacing in anterior teeth especially if orthodontic treatment is not feasible. Preservation of tooth structure following biological, aesthetic and mechanical principles of tooth preparation is also an important consideration. By the advent of new materials and techniques of adhesive dentistry, extremely minimal preparation is possible which offers best results. Ceramic laminate & veneer have emerged as one of the most conservative treatment option for aesthetic rehabilitation. It has excellent clinical performance & provides opportunity to enhance the smile in a minimally invasive to a virtually non-invasive manner. Aim of this paper is to present two such clinical cases where this treatment modality has been used to improve aesthetic and achieve satisfactory clinical result.

PROSTHODONTIC MANAGEMENT OF HEMIMANDIBULECTOMY PATIENT TO RESTORE FORM AND FUNCTION - A CASE REPORT

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Loss of mandibular continuity results in deviation of remaining mandibular segment toward the resected side depending on the extent of osseous and soft tissue involvement, degree of tongue impaired, the loss of sensory and motor innervations, the type of wound closure, the presence of remaining natural teeth and finally the first initiation of prosthetic treatment. The earlier the mandibular guidance therapy is initiated in the course of treatment; the more successful is the patient's definitive occlusal relationship. Prosthodontic treatment coupled with an exercise program helps in reducing mandibular deviation and improving masticatory efficiency. This case report describes prosthodontic management of a patient who has undergone a hemimandibulectomy 2 years back. The patient was rehabilitated using conventional mandibular & maxillary complete denture prosthesis designed to fulfill the patient's needs and requirements. Keywords: hemimandibulectomy, Conventional denture, prosthodontic rehabilitation. .

SEAL TO HEAL- PROSTHODONTIC REHABILITATION OF A PARTIALLY EDENTULOUS HEMIGLOSSECTOMY PATIENT

SHANI J NAIR, AJMAL KHAN KATTAK.S, SHINTO THOMAS

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The most common problem in the rehabilitation of edentulous mandibular resection patients is the lack of stability for the mandibular denture. This problem is seen with the continuity defect but tends to be more evident with the discontinuity defect. The objective of any prosthodontic service is to restore the patient to normal function, contour, esthetics, speech and health. An optimum denture stability is difficult to achieve in conventional complete dentures especially in case of extremely resorbed mandibular ridges. Often patients with oral carcinomas have resection of the tongue, the floor of the mouth or the bone of the mandible. Prosthodontist possess a tremendous challenge during encountering with the management of maxillofacial patients delivering esthetics and function to the patient. Mandible is the most common site for intraoral tumors which often requires the resection of large portions of the mandible. Management of patients without bony reconstruction is difficult. Post operatively, these patients encounter chewing, swallowing and speech problems. When both partial glossectomy and resorbed mandibular ridge are encountered together, oral rehabilitation of such patients is a challenge to the clinician. This case report describes management of 65yr old male patient with partial glossectomy and resorbed mandibular ridge

THE PURSUIT OF THE IMPERFECT(A) SMILE

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The pursuit of the “Imperfect(a)” Smile. Complete mouth rehabilitation is a dynamic functional endeavour and a biggest challenge which requires the integration of all component parts into one functioning unit. It requires efficient diagnosis and elaborates treatment planning to develop ordered occlusal contacts and harmonious articulation in order to optimize stomatognathic function, health and aesthetics which then translates to patients comfort and satisfaction. Therefore a thorough knowledge of the roles of various disciplines and producing an aesthetic makeover, with conservative and biologically – sound interdisciplinary treatment plan is essential. A 32 years old male patient reported with the chief complaint of yellow teeth and unappealing smile. Treatment plan demands attention of various dental specialities. Starting with panoramic imaging, oral prophylaxis, followed by root canal treatment and crown lengthening, smile analysis and concluding it by prosthetic rehabilitation of vertical dimension and bridge placement is the treatment plan which was executed for restoring the patients smile.

MODIFIED IMPRESSION TECHNIQUE FOR PERIODONTALLY WEAK TEETH

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The placement of complete denture immediately following the removal of natural teeth is not new. As early as 1860, Richardson described the use of immediate dentures. In line with present day immediate dentures are a necessity to prevent distress, anxiety and embarrassment to many people. Patients presenting for immediate denture therapy might have remaining teeth that are extremely mobile and/or misaligned. Making an impression of mobile teeth can be challenging because of the possibility of accidentally extracting the teeth while removing the impression from the patient's mouth and capturing in detail the teeth and buccal tissues adjacent to remaining teeth, which frequently have very different long axes. The objective of the impression is to record the basal seat of the denture and adjacent anatomic landmarks. Several authors have made suggestions for protecting periodontal compromised teeth with increased mobility from extraction during preliminary or final impression procedure for immediate dentures. Each technique has their own pros & cons. . An essential objectives of various techniques will be discussed that help in making an impression with an accurate detail of mobile teeth.

TOOTH SUPPORTED OVERDENTURE: STRONG FOUNDATION, GREAT PROPRIOCEPTION.

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DeVan golden statement: Perpetual preservation of what remains is more important than the meticulous replacement of what is missing still holds true. Preventive prosthodontics emphasizes the importance of any procedure that can delay or eliminate future prosthodontic problems and overdenture is considered as one of the most practical means of preventive treatment modality. A complete denture patient goes through a sequel of events like loss of discrete tooth proprioception, progressive loss of alveolar bone, transfer of all occlusal forces from the teeth to the oral mucosa and the most depressing sequel is the loss of patient's self-confidence. An overdenture delays the process of resorption, improves denture foundation area and increases masticatory efficiency. It also helps improve the retention and stability of the final prosthesis significantly and gives the patient the satisfaction of having prosthesis with his natural teeth still present. In this paper, case reports with three different types of Overdentures are discussed: Overdenture with cast copings with short dowels, telescopic overdenture and ball attachment with coping.

TIPS AND TRICKS IN PROSTHODONTICS

SHIKHA JOSHI

SURENDERA DENTAL COLLEGE, RAJASTHAN

Prosthodontic treatment of depleted, damaged dentitions varies widely, but the replacement of missing teeth and/or tooth structure has traditionally been at its core. It deals with this largely through prosthetic replacement. Failure of one or more of the prosthetic components is common in the field of prosthodontics. Sometimes continuing the same treatment may pose difficulty to the clinician. Because prosthodontic interventions as well as maintenance and repair are by nature costly, the fabrication of a complete new prosthesis in an impaired case may render the treatment more expensive to the patient. Apart from the cost, the treatment time may also increase. So to overcome the above mentioned obstacles, treatment alternatives in case of a failed prosthetic component may be a source of solution. This paper helps us in understanding a few lifehacks in the field of prosthodontics.

NO CLASPS PLEASE!- TELESCOPIC BRIDGE- A Case Report

SHILPI SANGHVI

D Y PATIL UNIVERSITY SCHOOL OF DENTISTRY, NAVI MUMBAI

PATIENT- This report describes the case of a 38 year old female, who reported to us with the chief complaint of “multiple cavitated” and “missing teeth”. The patient was interested in restoring her smile. Medical history revealed her Hepatitis B+ status along with a history of coronary heart disease and early arthritis. After consideration of all factors involved, it was deemed advisable to restore her entire maxillary arch with fixed maxillary telescopic dental prosthesis, and the mandibular missing teeth with a precision attachment supported denture. **MATERIALS AND METHODS-** Alginate impressions made. Study models constructed. Vacuum formed trays made from the diagnostic models to facilitate the construction of a temporary bridge after tooth preparations. The preparations may be slightly more aggressive than with traditional design, because we need approximately 0.3 mm extra space circumferentially for the telescopic coping. Margin design- deep chamfer or a shoulder-bevel combination. Parallelism of the preparations was primary and was repeatedly checked and verified. Telescopic copings with high-noble metal were milled and checked for parallelism. Telescopes were tried-in. The copings were delivered with permanent cement. A new impression was then taken with the telescopic copings in place, and a new bite registration secured. The bridge framework was fabricated, and another try-in appointment was arranged to verify proper fit. Finally, porcelain was layered and the prosthesis was delivered. **CONCLUSION-** This treatment protocol minimizes the risk of damage of abutment teeth, and the bridge itself, if it needs to be removed for subsequent dental treatment.

SHIELD THE SOCKET & IT WILL SHIELD YOUR IMPLANT – A PREVENTIVE APPROACH

SHRIKANT JADHAWAR, GAURI DEORE, SAMIDHA SHINDE, POONAM UPADHYAY

YOGITA DENTAL COLLEGE AND HOSPITAL, KHED

The main expectation of patients regarding implants in the aesthetic zone besides a low cost-benefit ratio and time efficiency is the aesthetic outcome, especially regarding the long-term view. In addition to the white aesthetics of the prosthetic restoration, there is a strong focus on the Pink aesthetics which are made up by the color, shape, and character of the marginal gingiva. Implant placement immediately after tooth extraction is often accompanied by resorption of surrounding tissues. The complete preservation or reconstruction of the peri-implant soft tissues in areas of esthetic importance remains one of the biggest challenges in implant dentistry. Esthetic compromise can manifest itself in vertical recession in the mid-facial or interdental area, loss of facial contours in the horizontal dimension and also with differing tissue color and surface texture. . Implants placed by Socket Shield technique showed osseointegration without any histologic inflammatory reaction and the tooth fragment was devoid of any resorption processes. In order to overcome the negative consequences of tooth extraction, various treatment approaches such as immediate implants with socket shielding technique will provide excellent esthetic outcomes and functional osseointegration. Conclusion – The socket shield technique offers reduced invasiveness at the time of surgery and high esthetic outcomes with effective preservation of facial tissue contours. Key words: Socket Shield Technique, Aesthetics, Implants, Bone Loss.

REJUVENATING LIFE THROUGH SMILE

SHRUTI POTDUKHE

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A smile design is a dental procedure which artistically creates straighter, whiter and beautiful natural looking smiles. Smile designs can do wonders to fully restore your dental health and appearance regardless of the original state of your existing teeth. An organized and systematic approach is required to evaluate, diagnose and resolve esthetic problems predictably. It is of prime importance that the final result is not dependent only on the looks alone. Our ultimate goal as clinicians is to achieve pleasing composition in the smile by creating an arrangement of various esthetic elements. This paper presents the various principles that govern the art of smile designing.

COMPARISON OF BALL AND FLAT ATTACHMENT SYSTEM IN IMPLANT SUPPORTED OVERDENTURE

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Abstract: Edentulism is considered as a public health problem and that affects most of the population and interferes in the quality of life of patients, both physically and psychologically. One therapeutic approach directed at improving oral functions in elderly edentulous patients is use of implant retained overdentures. Implant retained overdenture are used to give retention and stability to the prosthesis. Furthermore, abutment location and stability affect the treatment outcomes and biomechanical effects of prosthesis design. The impact of the location of implants and attachment systems affects the stability and retention of overdentures. According to Carl E.Misch the available bone in the anterior mandible (between the mental foramen) is divided into five equal columns of bone serving as potential implant sites, labeled A, B, C, D, and E, starting from the patient's right side. The purpose of this innovative study is to evaluate retention of implant on B and D implant position with two different attachment systems i.e. Ball attachment and Flat attachment in simulated implant supported overdenture prosthesis. So this novel method can help us to integrate in treatment approach for rehabilitation of the edentulous patient.

DEMYSTIFYING SMILES DIGITALLY (DSD)

SHWETA ANNALDASULA

TERNA DENTAL COLLEGE, NAVI MUMBAI, MAHARASHTRA

Smile, a person's ability to express a range of emotions with the structure and movement of the teeth and lips, can often determine how well a person can function in society and also the goal of an esthetic makeover is to develop a peaceful and stable masticatory system, where the teeth, tissues, muscles, skeletal structures and joints all function in harmony. Esthetic dentistry has gone beyond the realm of pure esthetics to become an integral part of treatment plan. Esthetic analysis or smile design that defines the treatment objectives and outcome helps to ensure a perfect biological and functional esthetic rehabilitation. Today smile designing not only means designing teeth, but also creating a smile that truly compliments the patients face and personality. The digital smile design (DSD) is an esthetic treatment designing tool that can strengthen diagnostic vision, improve communication between the interdisciplinary dental team as well as a laboratory technician, and enhance the treatment outcomes. This paper is a case report of anterior esthetic rehabilitation that attempts to emphasize on importance of esthetic principles of smile design with the perfect blend of digital evolving technology.

PROSTHETIC REHABILITATION OF SURGICALLY RECONSTRUCTED MANDIBULECTOMY DEFECT- A CASE REPORT

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AMRITA SCHOOL OF DENTISTRY, KERALA

Background: The maxillary and mandibular alveolar bone defines the profile & appearance of lower third of the face. Thus, it contributes to proper facial contour, occlusion, airway support, deglutition & speech. Reconstruction of maxillofacial defects is usually a challenge for the surgeons, owing to the complex anatomy of the region. Free flap is considered a gold standard to reconstruct the oncologic defects. Dental rehabilitation of such surgical defects is limited by the lack of proper tissue support, both hard and soft tissues and difficulty in getting proper occlusion. In this case report a 37 year old male patient, reported with recurrent odontogenic keratocyst in the left mandible. The reconstruction of a mandibular defect was done using free fibula flap and prosthetic rehabilitation with CAD – CAM milled implant supported bar overdenture. **Methodology:** With the aid of MDCT, an inverse treatment planning was done and a 3 dimensional model was created for the defect by rapid prototyping. With the guidance of the model, mandible was reconstructed with free fibula flap. After 6 months the prosthetic rehabilitation of the defect was carried out with the placement of implants and an implant supported bar overdenture. **Result:** The application of Inverse treatment planning has aided to perform accurate reconstruction of the mandible resulting in better outcome of treatment and improved quality of life of the patient.

PROSTHETIC REHABILITATION OF A PATIENT MAXILLARY DEFECT AND AN ANOPHTHALMIC SOCKET

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SIBAR INSTITUTE OF DENTAL SCIENCES, GUNTUR.

Defects involving the face and maxilla present a challenge to the prosthodontists as these have a direct effect on aesthetics, function as well as the psychology of the patient. Maxillofacial prosthesis currently finds itself experiencing more change than at any other over past 50 years of its recognized existence. In this report an attempt has been made to rehabilitate a patient who has undergone maxillectomy and enucleation of eye ball with an obturator and eye prosthesis. This paper describes the rehabilitation of an ophthalmic and maxillary defect with an ocular prosthesis and a palatal obturator respectively in a male patient whose cause of the defect was mucormycosis. Prosthetic rehabilitation was done using routinely available material and a simple conventional method. The successful rehabilitation of a maxillary defect resulted in a complete obturation of the defect, enabling the patient to feed without nasal regurgitation while the of the extraoral prosthesis resulted in restoration of esthetics. The fabricated maxillofacial prosthesis increased the patient's quality of life and encouraged him to build up self-confidence to return to the social life. It is said that face is the mirror of mind, its index the eyes- and as we are all aware of the charisma of an attractive face and rejection of a mutilated face by the society, rehabilitating the patients with maxillofacial prosthesis to bring them back to mainstream society is the main responsibility of the prosthodontist.

EVALUATION CRITERIA FOR DENTAL BUR SELECTION, ITS USAGE, CLEANSING AND DISPOSAL

SNEHA M RAUL

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As during tooth preparation, the removal and shaping of tooth structure is very important aspect and it is achieved by dental burs. Dental bur comes in a variety of shapes and sizes, all with very complex and detailed surface features. The complex miniature architecture of dental bur makes pre-cleaning and sterilization difficult. As dental burs are composed of steel, alloys, or tungsten-carbide, steam in an autoclave has the disadvantage of rusting, corroding, and clogging of the cutting edges. Devising a sterilization protocol for dental bur requires care and are the source of microbial contamination as a result of their contact with saliva, blood, and carious teeth. Transmission of infection primarily occurs in horizontal mode among dentist and patients. The present survey will enable to understand the protocol for handling of the dental burs in routine practice. **OBJECTIVE-** The purpose of this study is to evaluate the criteria for bur selection, usage of bur, cleansing and disposal protocol followed by under graduates, post graduate students and clinicians of Nagpur. **METHODOLOGY-** The study involves a questionnaire survey conducted among the undergraduates, postgraduates and clinicians of Nagpur. **RESULT-** The results which are analyzed will be discussed during the presentation and will evaluate criteria followed by the students and clinicians regarding dental bur.

FULL MOUTH REHABILITATION - CASE REPORT

SONA J LAL

SRI SANKARA DENTAL COLLEGE, AKATHUMURI, VARKALA

Full mouth rehabilitation restores the anatomical form of the teeth and maintains the arch continuity. This helps in distributing the masticatory forces uniformly to the underlying supporting structures. Different techniques are followed for this. Each one has its own advantages. This presentation highlights few cases which is rehabilitated using different techniques.

MANDIBULAR OVERDENTURE RETAINED BY MAGNETIC ASSEMBLY :- A CASE REPORT

SONAM KUMARI, SAGNIK BANERJEE

ITS DENTAL COLLEGE, GAZIABAD

Application of magnets in overdenture technique has been widely used in dentistry in the field of prosthodontics as they can be manufactured in small dimensions as retentive devices for complete denture, removable partial denture, obturators and maxillofacial prosthesis. This case report will present a simple and efficient method of fabrication of mandibular overdenture retained by magnets in a patient whose mandibular residual ridge is severely resorbed with few remaining teeth and maxillary immediate denture by using multidisciplinary approach. Magnetic assembly consists of magnet and coping with a keeper on the remaining tooth structure since magnetic attachments can provide support, stability and retention.

REINFORCEMENT OF DENTURE BASES BY DIFFERENT MATERIALS: A CASE SERIES

SOURABH KHANDELWAL, RAJEEV SRIVASTAVA

MODERN DENTAL COLLEGE AND RESEARCH CENTRE, INDORE, MADHYA PRADESH

Poly methyl methacrylate (PMMA) is frequently used material to fabricate denture bases due to its various advantages including low cost, light weight, low water sorption, biocompatibility, ease of processing, stability in oral environment, acceptable aesthetics and can easily recharge and repaired its shape . However, it is not considered an ideal material because of its inferior physical and mechanical properties such as brittleness, low modulus of elasticity, low impact strength and low flexural strength, due to which denture fracture becomes commonly encountered problem in a day to day clinical practice. Several materials are used to enhance the properties of poly methyl methacrylate PMMA by incorporating different materials in its composition. This case series presents the incorporation of zirconia (ZrO_2), metal, silver nanoparticles in complete denture to improve the properties of denture base.

EVALUATION OF PROPERTIES OF POLYETHER IMPRESSION MATERIAL INCORPORATED WITH ANTIMICROBIAL ADDITIVE

SREELEKHA MADDINENI, K. PRADEEP DEV

VISHNU DENTAL COLLEGE, KOVVADA, ANDHRA PRADESH

Introduction : Difficulties in sterilizing impressions have led to chemical disinfectant solutions as an alternative. However some impression materials are more sensitive to humidity like polyether which may lead to changes in physical properties. Purpose Of The Study : To evaluate the Antimicrobial, Physical and Mechanical properties of polyether impression material incorporated with antimicrobial additive. Materials and methods : Commercially available Polyether impression material (Pentamix) and varying concentrations of 0.5, 1, 2 wt% of antimicrobial additive was added to the impression material. Antimicrobial activity was determined using the disk diffusion method. The Tear strength, Dimensional Stability, Setting time were measured. Analysis of variance (ANOVA) was used to identify the significant differences within and across the groups.

SMILE CONFIDENTLY FOR A BETTER FUTURE!! ANTERIOR AESTHETIC REHABILITATION:A CASE REPORT

SRUTHY U NAIR, SAADATH AFZAA S A

A J INSTITUTE OF DENTAL SCIENCES, MANGALORE

A pleasant smile is considered as a symbol of beauty and well being in the modern society. The appearance of anterior teeth has a significant emotional impact on patient. Missing teeth in the aesthetic zone compromise functional, esthetical and phonetic status of the patients. Also advancement in dental implant treatment leads to predictable survival rates. Meticulous evaluation of both bone quality and quantity is a major requirement for a successful osseointegrated dental implant treatment. Maxillary lateral incisors vary in form more than any other tooth in the mouth except the third molars. Microdontia of maxillary lateral incisor is called as “peg lateral”, that exhibit converging mesial and distal surfaces of crown forming a cone like shape. This case report is a step by step procedure in which missing tooth(21)was restored with dental . implant followed with esthetic correction of proclined central incisor (11) and restoring peglaterals to its normal form and function.

ORTHOPEDIC CHIN CUP EMPLOYED IN THE CORRECTION OF MANDIBULAR DEVIATION ASSOCIATED WITH HEMIMANDIBULECTOMY- A NOVEL APPROACH

SUBIYA HUDA

MCOOS, MANIPAL

Prosthetic rehabilitation of patients with mandibular deviation associated with hemimandibulectomy is amongst the most challenging problems faced by Prosthodontists, owing to the impairment of maxillomandibular relationship, occlusion, facial symmetry and speech based on the severity of multiple factors namely, extent of osseous and soft tissue involvement, tongue impairment, loss of sensory and motor innervation, method of wound closure, presence of remaining natural teeth, and most crucially, the time lapse between the initiation of prosthetic treatment after completion of surgical intervention. This paper presents a case of prosthetic management of a patient who reported for the first time after 4 years of postsurgical cancer therapy with partially edentulous Kennedy's Class I maxilla and completely edentulous mandible with hemimandibulectomy along with complete deviation of the mandible towards the left. Initial evaluation posed challenging as it indicated poor prognosis. Treatment included the use of an orthopedic chin cup appliance as a part of physiotherapy to correct mandibular deviation and restore maxillomandibular relationship by guiding the muscles to a more stable and harmonic position, followed by the fabrication of a maxillary removable partial denture with a guiding plane and mandibular complete denture for occlusal approximation and rehabilitation of function, speech, aesthetics and psychology of the patient. The use of orthopedic chin cup in the treatment of orthodontic therapy has been well documented but their use in the treatment of mandibular deviation is a novel approach and proves to be a potent adjunct to physiotherapy in order to enhance the prognosis in such cases.

SOCKET SHIELD TECHNIQUE

SUNIL KUMAR SINGH

DENTAL COLLEGE AZAMGARH

Aim: Clinical studies have suggested that retaining roots of hopeless teeth may avoid tissue alterations after tooth extraction. Implant placement immediately after tooth extraction is often accompanied by resorption of surrounding tissues. A clinical technique was developed where the buccal portion of the root is retained to preserve the periodontal ligament and bundle bone. This technique is based on animal studies showing the potential to preserve the facial tissues utilizing this approach. The purpose of this study was to gain more insight regarding the safety of the technique with regard to biological and implant-related long-term complications and to observe the clinical appearance of the peri-implant tissues. Another objective was to evaluate volumetric changes of the affected facial contours in long-term and the esthetic outcomes. Healing of extraction sockets undergoes a re-modeling process which leads to horizontal and vertical bone loss. Alteration of ridge contour may compromise the restoration-oriented three dimensional positioning of the implant. Various methods of guided bone regeneration have been described to retain the original dimensions of the bone after extraction. In-lieu of surgical augmentation to correct a ridge defect, the socket-shield technique offers a promising solution. Socket shield technique has demonstrated the potential in preventing buccal bone from resorption in animal and clinical studies and may serve as a feasible treatment along with being cost effective and minimally invasive option in areas with high aesthetic concern.

A PANACEA PERIPHERAL BLOOD STEM CELLS & PLATELET RICH FIBRIN MATRIX IN DENTAL IMPLANTS – A CASE REPORT

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KLE INSTITUTE OF DENTAL SCIENCES, BANGALORE

The addition of molecules or growth factors to the implant surface is an approach to enhance bone to implant contact (BIC). Therapeutic applications of platelet-rich products such as platelet rich fibrin matrix (PRFM) have led to improved bone regeneration and faster titanium implant osseointegration, which improve the stability and maintenance of dental implants by increasing BIC. Mesenchymal stem cells (MSCs) is a multipotent stromal cell with prominent regenerative functions. MSCs were first identified and isolated from bone marrow and then found in various tissues. Among these sources peripheral blood MSCs (PBMSCs) draw increasing attention as they share similar biological characteristics with MSCs derived from bone marrow or adipose tissue. PBMSCs have the convenience of being harvested and expanded to enough numbers, with their osteogenic capacity maintained in a clinical permitted period. The literature search does not show any human clinical case performed till date where PRFM and PBMSCs were incorporated at the time of Dental implant placement. This case report showcases the placement and procurement of Dental Implants with PRFM and PBMSCs respectively as potential regenerative materials for implant stability. After surgical preparation of the osteotomy sites PBMSCs and PRFM were placed, which were procured using Merisis kit from patient's own blood just before the procedure. MSCs along with PRFM increased implant stability as evidenced by higher implant stability quotient values. Radiographs also showed appreciable bone regeneration following implant placement. The outcomes of this regenerative procedure holds a promising future to solve a multiple issue seen clinically.

PROSTHODONTIC MANAGEMENT OF PATIENT SUFFERED FROM OLFACTORY NEUROBLASTOMA- A CASE REPORT

SUYASHVI GUPTA

SEEMA DENTAL COLLEGE AND HOSPITAL, UTTARAKHAND

Obturator prosthesis is most common treatment modality for partial or total maxillectomy in patients suffering from oral cancer. Size and location of defects decide the type of rehabilitation. Large defects of maxilla are associated with loss of hard tissues including bone and teeth complicated with overlying soft tissue collapse. Closed hollow bulb obturators are fabricated for successful restoration of post maxillectomy defects. This paper presents a simplified technique for fabrication of closed hollow bulb obturator using heat activated autopolymerising acrylic resin and lost salt technique with single flak and one time processing method. The technique described is a single step procedure that results into closed hollow obturator as a single unit with uniform wall thickness around hollow space ensuring least possible weight.

CONVENTIONAL AND ADVANCED TREATMENT APPROACH FOR MANAGEMENT OF TEMPOROMANDIBULAR DISORDER- CASE REPORTS

SWAGATA DAS, DIBYATANU MAJUMDAR

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Conventional and Advanced Treatment approach for management of Temporomandibular Disorder- Case reports. Temporomandibular disorder is a musculoskeletal disorder involving the masticatory system. According to the Glossary of the Prosthodontic terms it is defined as “conditions producing abnormal, incomplete, or impaired function of the temporomandibular joint(s) and/or the muscles of mastication”. It has been found that approximately 40-60% of the population has at least one TMD symptoms and 3.6-7% of the population with severe TMD is compelled to seek treatment. Moreover the etiology of TMD is multifactorial and complex. Among the major factors the most debated and highlighted cause is occlusal factors. To establish occlusal discrepancy as a cause of TMD, the occlusion should be checked both statically and dynamically. Proper identification of the etiologic factor becomes imperative for the clinician for therapeutic success. The treatment modalities that are used for TMDs are broadly classified as definitive and supportive. A definitive occlusal therapy is directed towards correction of occlusal contact pattern or improving the altered orthopaedic stability caused by imbalanced loading forces. Definitive occlusal therapy again is divided into reversible and irreversible occlusal therapy. Reversible occlusal therapy alters the occlusion temporarily with the use of an occlusal appliance or orthotics. Whereas an irreversible therapy permanently alters the occlusion by selective grinding. This paper presents the conventional way of selective grinding by the use of face bow and semi-adjustable articulator and newer methods using T-Scan, Joint tracker and EMG.

IMPROVING QUALITY OF LIFE BY RESTORATION OF SEVERELY DAMAGED DENTITION

TESSA KURIACHAN, SHOMA SASIDHARAN

PUSHPAGIRI COLLEGE OF DENTAL SCIENCES, THIRUVALLA, KERALA

Restoration of occlusion in patients with severely worn dentition is challenging since every case is unique. Full mouth rehabilitation should re-establish a state of functional as well as biological efficiency where teeth and their periodontal structures, the muscles of mastication, and the temporomandibular joint (TMJ) mechanisms all function together in synchronous harmony. This case report describes restoration of severely damaged dentition which was unesthetic and which did not serve the purposes of speech nor mastication. Restoration resulted in improved esthetics which was constructed on an occlusal interface such that the periodontium of teeth, muscles of mastication, and TMJ's function in harmony with each other.

MANAGEMENT OF A HEMIMANDIBULECTOMY PATIENT WITH FREE FIBULA GRAFT USING DENTAL IMPLANTS – A CASE REPORT.

UVASHRI S, VIJAYABHARATHI P

ALL INDIA INSTITUTE OF MEDICAL SCIENCE, NEW DELHI

One of the most challenging and demanding maxillofacial endeavors is the construction of functional dental prosthesis for an edentulous patient who has undergone a mandibular resection. A hemimandibulectomy patient can have many debilitating consequences such as deviation of mandible towards resected side that further lead to eccentric occlusion or no occlusion contacts, a disoriented masticatory cycle, facial disfigurement, distorted speech and salivation problems. To correct the deviation mandible or maxilla based appliance can be provided according to the patients oral and medical conditions. And to treat or replace the teeth on the resected side, mandibular reconstruction using fibula, rib, iliac crest grafts are indicated. Among these, free fibula grafts are commonly used as they have thick cortical bone so the patients can be rehabilitated using implant supported or retained prosthesis. This presentation will highlight the rehabilitation of one such case.

ORAL REHABILITATION OF A HYPOHIDRODOTIC ECTODERMAL DYSPLASIA PATIENT: AN UNUSUAL PROSTHETIC PROBLEM

V S LAKSHMI THORRETI, C. MOUNIKA

MNR DENTAL COLLEGE, SHAPUR, TELANGANA

The aim of this clinical report is to describe the prosthodontic management of a young boy aged 13 years affected by ectodermal dysplasia (ED). Dental treatment can vary depending on the severity of the disease (tooth size, morphology, and the amount of available alveolar bone). New technologies, such as adhesive dentistry, overdenture, and complete denture represent some of the options in the management of the rehabilitation of the patient affected by ED. The conical shaped central incisor was modified using composite resin followed by complete denture. Prosthodontic and restorative treatment was provided for the psychological and social comfort of the young patient.

**PROSTHETIC REHABILITATION OF ORBITAL DEFECT: CONVENTIONAL Vs CONTEMPORARY
APPROACH: CASE REPORT**

VAIBHAV JAIN, VISHVNATHE UDAYSHANKAR SURYAKANT

ARMED FORCES MEDICAL COLLEGE, PUNE

Orbital defects usually arise from management of tumors originating from the orbital contents or due to the spread of tumors originating from paranasal sinus, palate, nasal cavity, overlying skin and intraoral mucosa. These defects lead to significant facial disfigurement, functional limitations, and negative psychological impact on the patient. Reconstruction is carried out 1) to obtain a clear separation between the oral and nasal cavities to allow unobstructed and unimpaired breathing and 2) to obtain acceptable aesthetics. Patients with an orbital defect have to cope with loss of vision and the inherent change in their lifestyle. Their deformed facial appearance is difficult to camouflage and even with the advent of microvascular surgery and free tissue transfers. The development of orbital prostheses that allow the restoration of the facial appearance has provided clinicians with a viable option for these patients. This case report describes rehabilitation of a patient of anophthalmia with a spectacle retained silicone prosthesis developed with the help of conventional method and computer aided manufacturing with rapid prototyping technology. The conventional method of fabrication includes a variety of complex production steps. It is time-consuming, labor intensive task and the end results are heavily dependent on the experience of the clinician and anaplastologists. Recent advances in 3D-printing technologies hold tremendous promise for advancing treatment options available to patients. Prototyping has been largely used in maxillofacial prosthetics to create accurate three-dimensional models vis-à-vis conventional techniques which may produce deformation of soft tissues and introduce inaccuracies.

A COMPARATIVE EVALUATION OF STRESSES ACTING ON A SINGLE WIDE DIAMETER IMPLANT VERSUS TWO NARROW DIAMETER IMPLANTS USED TO REPLACE A MANDIBULAR MOLAR : AN FEA STUDY.

VAIDEHI PATEL, BHUMI SHAH

MANUBHAI PATEL DENTAL COLLEGE, VADODARA, GUJARAT

The most frequent single molar to be replaced is the first mandibular molar because this tooth is lost first. Implantation in the posterior area is a predictable procedure over time. The single-tooth restoration has become one of the most widely used procedures in implant dentistry. Improvements to the abutment–implant interface design, wider implant platforms and the increased use of cemented restorations have greatly enhanced this procedure. Placement of implant to replace a molar presents diagnostic, surgical, and prosthetic demands, such as an enlarged mesiodistal dimension and occlusal forces distribution. Nonetheless, limitations in the volume of underlying bone and heavy occlusal loads, with or without parafunctional habits, still contribute to occasional disappointments in restoration stability. The use of 2 implants to restore a molar has been shown to eliminate problems associated with bone volume and prosthetic stability. One of the most significant barriers to the widespread use of this concept has been the limitation of the size of implants and their associated prosthetic components. This paper presents the biomechanical analysis of stresses acting on two narrow diameter implants in comparison with single wide diameter implant to replace a single mandibular molar.

FULL ARCH MANDIBULAR REHABILITATION FIXED ON 6 IMPLANTS- A CASE REPORT

VAISHNAVI R, JUNU HENRY

COORG INSTITUTE OF DENTAL SCIENCES, VIRAJPET, KARNATAKA

The All-on-6 dental implant solution is created for patients with limited bone tissue in the mandible as well as is different to conventional dental implants because it makes best use of readily available bone making use of simply six oral implants. This technique has a high success price at the four year follow up phase as well as has actually been an appealing option for people for a number of years. While dental implants are often used to change individual teeth, they can likewise be utilized to anchor a new or existing denture. Conventional denture wearers regularly experience gum tissue irritability and can have troubles consuming and speaking as a result of the instability of removable dentures. These troubles can worsen the longer teeth have actually been missing due to the mandible bone's all-natural degeneration when teeth are missing. All-on-6 denture dental implants procedures rely upon 6 purposefully located dental implants to keep dentures firmly in place. Full-arch rehabilitation, a term used by many practitioners, has become a popular restorative option in dental settings. The purpose of this paper presentation is to report a case of full-arch rehabilitation of mandible on six endosseous implants loaded following the standard procedure.

A PRECISE PROSTHODONTIC APPROACH TO ORAL SUBMUCOUS FIBROSIS- A CASE REPORT

VAISHNAVI R

RAJAH MUTHIAH DENTAL COLLEGE, TAMIL NADU

A PRECISE PROSTHODONTIC APPROACH TO ORAL SUBMUCOUS FIBROSIS- A CASE REPORT. Oral submucous fibrosis is a chronic disease of the oral mucosa characterized by the fibrosis of lamina propria and deeper connective tissues. Extra orally there is restricted mouth opening. Intra orally, appearance of fibrous bands in buccal mucosa , atrophy of masticatory mucosa , salivary gland hypofunction , oral pain and burning sensation are majorly noticed . Prevalance of OSMF in India has increased from 0.03% to 6.42% . Formulating a proper treatment plan and providing a successful complete denture for a completely edentulous OSMF patient is an enigma to many. Numerous difficulties are encountered during impression making, jaw relation , teeth arrangement and fabrication of the final complete denture prosthesis of these patients. This case report of a completely edentulous patient with OSMF emphasizes on the modifications made during each step according to patient's altered tissue conditions, thus providing comfort, restoring the function and thus enhancing patient's quality of life.

REHABILITATION OF MAXILLARY ANTERIOR EDENTULOUS REGION USING IMPLANTS : A CASE SERIES

VANDITA SRIVASTAVA

BANARAS HINDU UNIVERSITY, VARANASI

Tooth loss in the anterior region is commonly the result of a traumatic injury or a congenital anomaly. Several options are available for the replacement of missing teeth. These include removable dental prostheses, conventional fixed partial dentures (FPDs), resin-bonded FPDs, implant supported prostheses. The traditional treatment for an edentulous space in maxillary anterior region is a conventional FPD. A major shortcoming of these alternatives is the significant tooth reduction of the abutments. Sub-gingival margins are required in esthetic situations, but these are associated with increased gingival inflammation. Implant supported FPD is an appropriate treatment option for replacing missing maxillary anterior teeth. In the anterior maxilla, the placement of an implant in a prosthetically ideal position is often not possible because of the lack of sufficient bone, vertically or horizontally. In cases where there was a deficiency of soft-tissue and bone, rehabilitation with implant-supported prosthesis to restore single or multiple teeth, especially in aesthetic region, is a great challenge for the implantologist. The residual alveolar ridge present plays a crucial role in the success of implant rehabilitation. Augmentation of the resorbed alveolar crest can be achieved with bone grafts, bone distraction, ridge splitting. The aim of this case series is to demonstrate the prosthetic rehabilitation of maxillary anterior edentulous space using implants

DIFFERENT RETENTIVE AIDS FOR ORBITAL PROSTHESIS – A CASE SERIES

VIJAYABHARATHI P, UVASHRI S

ALL INDIA INSTITUTE OF MEDICAL SCIENCES, NEW DELHI

DIFFERENT RETENTIVE AIDS FOR ORBITAL PROSTHESIS – A CASE SERIES. Exenteration of the orbital contents as well as removal of a part of maxilla with an ablative surgery to treat various neoplasm's or non-malignant diseases can severely affect a person in terms of function, esthetics and psychological trauma. Orbital prosthesis is a good alternative for cosmetic and psychological rehabilitation. As surgical reconstruction for orbital defects is not possible, so has to be rehabilitated using prosthesis only. It becomes a challenging task for a maxillofacial prosthodontist to fabricate a prosthesis that replicates the healthy side of the face and to retain the prosthesis because many times defects are shallow or have no undercuts. Therefore, success of the prosthesis depends primarily on satisfactory retention of the same. In this paper Various retentive techniques include using spectacle frame, adhesives, osseointegrated implants, magnets or buttons will be discussed.

COMPARISON OF ACCURACY IN TRANSFERING MAXILLARY OCCLUSAL PLANE WITH DIFFERENT FACEBOW SYSTEMS- AN IN VIVO STUDY

VIMALA SAI MANNE, B.LOK SAGAR

DRS SUDHA AND NAGESWARA RAO SIDDHARTHA INSTITUTE OF DENTAL SCIENCES, ALLAPURAM, ANDHRA PRADESH

The oriental relationship of maxillary arch with the cranial base is established along with vertical and horizontal jaw relations during treatment planning of dental restorative procedures for developing an occlusion compatible with surrounding stomatognathic system. The facebow is used to transfer the spatial orientation of human maxilla and hinge axis of the patient to the articulator, thereby articulation of the maxillary casts to the articulator. The transfer of hinge axis using facebow, transfers the jaw movements occurring in the patient to articulator, and allows for more accurate arc of closure to establish in the articulator ; thereby prevents interceptive or deflective contacts, the risk of temporomandibular joint pain, muscle pain and periodontal problems. In this invivo study, an attempt was made to compare the occlusal plane angle of maxillary cast mounted on Hanau Widevue , Whipmix and Amann Girrback articulators using facebow transfer with the angulation of Frankfort horizontal plane to the occlusal plane obtained on lateral cephalogram.

IMPROVISED PNEUMATIC IMPRESSION WITH AN INFLATABLE BALLOON IN MAXILLARY DEFECT PATIENT: A CASE REPORT

VINOY PALATHRA, DHANYA MOL

DASMESH INSTITUTE OF RESEARCH AND DENTAL SCIENCES, FARIDKOT, PUNJAB

The key for a successful prosthesis is an accurate impression, as the prosthesis that is fabricated in the laboratory is only as accurate as the impression made. Dental impression procedures may pose a challenge to the dentist as well as for patients under certain circumstances. These situations may include restricted mouth opening, presence of high arched palate, exaggerated gag reflex, etc. These conditions may necessitate innovation in the existing impression techniques. These innovations can also be assisted by utilizing advanced impression trays and impression material. In this presentation, an impression technique is discussed for a preliminary purpose which utilizes a customized balloon impression tray using the principle of pneumatic mechanics. . Palatal adaptation of the prosthesis may be influenced by the anatomic morphology of the palate and the technique used to record the same. The basic promise of the technique is to reduce the amount of impression material used, by accommodating an inflated balloon into the palatal space. The basic principle behind this impression technique is the pneumatic mechanics which works or operated by air or gas under pressure. For the patient who demonstrates neurological problems, syndromes, and cleft palates, customized balloon impression tray along with modification of the routine impression, procedure helped in overcome many clinical difficulties.

PROSTHODONTIC MANAGEMENT OF PATIENT WITH AMELOGENESIS IMPERFECTA: A LIFE ALTERING CHANGE

VISHAKHA GUNWANT PATIL, SEJAL SADASHIVRAO SHINDE

CSMSS DENTAL COLLEGE AND HOSPITAL, AURANGABAD, MAHARASHTRA

Amelogenesis imperfecta (AI) is a hereditary disorder expressing a group of conditions which cause developmental alterations in the structure of enamel. Patients with AI are often aesthetically and functionally affected because of tooth discolouration, with accompanying hypersensitivity and loss of vertical dimension of occlusion [VDO]. Restoration of such inherited defects is essential, not only due to functional and aesthetic reasons, but also because there is a positive psychological impact on young patients. The treatment of such patients would not only upgrade their quality-of-life, but also improve their self-esteem. The correction of such severely worn out dentition may require extensive restorative treatment to achieve appropriate results. It is important to identify the factors that contribute to the excessive wear and loss of vertical dimension. The correction of the defects has to be done without violating the biologic or mechanical principles. When patient requires a comprehensive approach, a mutual understanding and communication among the prosthodontic, endodontic, and periodontic disciplines is very critical, to achieve the improved functional and aesthetic outcome. In this full mouth rehabilitation, it is essential for the prosthodontist to play a key role in the multidisciplinary team. This paper presentation is a systematic approach in rehabilitating a case of AI using full mouth metal reinforced porcelain restorations.

AUTOGENOUS DENTIN AS NOVEL GRAFT MATERIAL IN IMMEDIATE IMPLANT

VISHVNATHE UDAYSHANKAR SURYAKANT, VAIBHAV JAIN

ARMED FORCES MEDICAL COLLEGE, PUNE

Rehabilitation of missing teeth with dental implants is an established protocol nowadays. Advancement in dental implants has led to successful management of cases requiring immediate extraction and implant placement. However, many a times there is a gap between implant and alveolar socket wall after placement of dental implant. Various grafting materials have been used to fill up this space. Fresh autogenous bone graft being osteo-inductive, osteo-conductive and osteo-proliferative is still considered a gold standard. The dentin and bone have similarities in terms of structural and biochemical properties. Dentin consists of 55% inorganic and 45% organic substances. Among the inorganic substances, hydroxyapatite has the characteristic of combining and dissociating calcium and phosphate as those of bone. Organic substances include the bone morphogenetic protein (BMP), other proteins with osteo-induction capacity and type-I collagen which is same as that of alveolar bone itself. Therefore, they have same bone remodeling capacity with autogenous bone and can serve as native bone grafting material. Such dentin graft has been utilized in socket preservation procedure with good success. Here, one case of missing premolar was successfully rehabilitated with immediate dental implant using autogenous dentin graft.

THE PROSTHODONTIC MANAGEMENT OF A PARTIALLY EDENTULOUS PATIENT WITH PAPILLON LEFEVRE SYNDROME-A CASE REPORT

Y SANGITA, G. PRIYANKA

MAMATA DENTAL COLLEGE, KHAMMAM, TELANGANA

Papillon–Lefèvre syndrome (PLS) is a rare autosomal recessive disorder, characterized by diffuse palmoplantar keratoderma and precocious aggressive periodontitis, leading to premature loss of deciduous and permanent dentition and associated functional and psychological disturbances. Its aetiopathogenesis is thought to be secondary to the mutation of the Cathepsin C gene. Various studies have shown that the immune related cells like the polymorphonuclear leucocytes and the macrophages and their precursors were affected. Dentists play a significant role in the diagnosis and management of PLS as there are characteristic manifestations like periodontal destruction at an early age and an early eruption of permanent teeth. The prosthetic approach provides psychological and social benefit to the patient by restoring not only the function but also the aesthetics. This case report elicits about a partially edentulous 22year old male patient with this syndrome, who is treated with an unconventional complete denture prosthesis i.e tooth supported overdenture with telescopic coping,by salvaging the existing teeth thus preventing further alveolar bone resorption, better occlusal load distribution, maintain sensory feedback and achieve better stability of the prosthesis with emphasis on psychological aspect of not being completely edentulous.

TERMINAL HINGE AXIS – FACT OR FALLACY

YALAMOLU SATYA SAI SRUTHI

LENORA INSTITUTE OF DENTAL SCIENCES, RAJAHMUNDRY, ANDHRA PRADESH

The terminal hinge axis is defined as the axis around which the movement occurs when the condyles are in their most superior position in the articular fossae and the mouth is purely rotated open. The terminal hinge axis as a concept had its origin in the work of Stuart, Mc Collum and others of the Gnathological school in the early years of 20th century. Despite reservations, even then, regarding its existence, by a number of workers the concept managed to remain unchallenged for nearly a century. But, today investigators using sophisticated techniques like ultrasound, dynamic stereometry etc., have unequivocally concluded that the terminal hinge axis as described by the gnathological school is non-existent. This they concluded because of their investigations have shown that the mandible moves by a combination of rotation and translation. They further go on to add that, in such a situation the axis around which the mandible executes such a combined movement should exist outside of the body of the mandible. Aim of this paper is to demonstrate the axis of rotation when the mandible purportedly executes hinging movement, lies outside the body of the mandible by using the Rouleaux method.

ANTIBACTERIAL PROPERTIES OF HEAT CURED PMMA REINFORCED WITH TITANIUMDIOXIDE AND CHITOSAN– A COMPARITIVE IN VITRO STUDY

YEHSANA N, BEENU V

MALABAR DENTAL COLLEGE AND RESEARCH CENTRE, VATTAMKULAM, KERALA

ANTIBACTERIAL PROPERTIES OF HEAT CURED PMMA REINFORCED WITH TITANIUMDIOXIDE AND CHITOSAN– A COMPARITIVE IN VITRO STUDY. Acrylic resin is the material widely used in the fabrication of dentures. Polymethyl methacrylate (PMMA) resin has long been used as a denture base material because of its hardness and rigidity under masticatory pressure, ease of handling, good aesthetics and low price. However, despite its obvious suitability as a denture base material PMMA is also susceptible to deterioration surface roughness following fatigue, microbial adherence and colonisation by bacteria due to water absorption. Microbe adhesion to the denture surface befouls the oral cavity and can cause systemic infections (e.g. aspiration pneumonitis). A recent method to prevent microorganism-induced oral diseases is to manufacture self-cleaning dental materials. The use of nanoparticles has been suggested to incorporate antimicrobial activity. Among the available nanoparticles, titanium dioxide (TiO₂) serves as a good example, because its antibacterial properties have been demonstrated in various biomaterials. TiO₂ also has photocatalytic effects that enable it to remove pollutants in water via oxidation or reduction mechanisms. Different reactive oxygen-containing species such as H₂O₂, OH[•], and O₂^{•-} that damage the bacterial cells are produced by the photo-initiating chemical reactions. Chitosan is a deacetylated derivative of chitin. The antibacterial mechanism of chitosan is due to the presence of free amine groups. A couple of studies are there in literature proving the antibacterial properties of titanium dioxide and chitosan. The present study aimed at evaluating and comparing the antibacterial properties of chitosan and titanium dioxide nanoparticles.

PRECISION IN PROSTHESIS OF IMPLANT SUPPORTED FIXED PROSTHESIS- SERIES OF CASE REPORTS

MS. PALEPU NISHITHA, K. MARIA ROSEME

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Oral rehabilitation of an edentulous patient is a challenge to a prosthodontist. few patients have a life long problems with their complete dentures such as difficulty in speech and mastication. Implant supported prosthesis gives patients a normal healthy life for their functional and aesthetic demands. Implants are the most preferred treatment options to support and retain the fixed or removable prosthesis. Successful osseointegration enables both dentist and patient to accept the full arch implant supported prosthesis. The aim of this paper is to present a series of case reports on full mouth rehabilitation with implant supported fixed prosthesis for a single arch or completely edentulous arches with ascending prosthesis.

The background of the cover features a large, stylized blue boat on a beach. The boat is positioned in the middle ground, with its bow pointing towards the right. The beach is a light tan color, and the background shows a hazy, mountainous landscape under a pale sky. The overall aesthetic is clean and professional, with a focus on the central text.

ORIGINAL RESEARCH

ORNAGRIN- A LIGHT TO LIFE

AASHIQUE ALI, ANISHA SHARON JACOB

SRI RAMACHANDRA MEDICAL COLLEGE & RESEARCH INSTITUTE, CHENNAI

The anatomy of the smile is an integral part of dentistry. To create a harmonious smile the dentist must maintain or create the normal curvature of the lips, proper exposure of the red zone of the lips, an undistorted philtrum and undisturbed nasolabial grooves. These entities, maintained in harmony with the exposed teeth, constitute the anatomy of a smile. In order that patients may be served properly, the smile must be understood, recorded, and analysed so that desirable aspects may be preserved and graceless components returned to attractiveness. Thus, this oral presentation aims in developing a software which helps in designing the smile of the patient prior rehabilitation to achieve optimum aesthetics in harmony with the surrounding structures.

AWARENESS AND ATTITUDES OF PATIENTS REGARDING OCCLUSAL DISORDERS – A QUESTIONNAIRE SURVEY.

ABDUL HAQUE INAMDAR, SANCHITA RAJU KAVIL

GOVERNMENT DENTAL COLLEGE AND HOSPITAL, AURANGABAD

At every level of general practice a dentist routinely faces problems of sore teeth, excessive wear, loose teeth, temporomandibular joint disorders and Oro-facial pain. It a puzzling observation that the most prevalent evidence of damaged teeth is so routinely ignored, both in clinical practice and dental curriculum. Dentists are the only health professional who are trained to diagnose problems of teeth and to understand problems of masticatory system function. Every practitioner should be able to recognize it in its various forms, treat it, and when detected early enough, prevent it from destroying dentition. Patient participation in healthcare decision making improves the dental services and its outcomes. There is low level of awareness among people regarding Occlusal disorders and their treatment. Also, there is a paucity of information regarding awareness of patients and their attitude about occlusal diseases. This study was undertaken to investigate the knowledge, attitude and factors affecting decision making of patients regarding occlusal diseases.

COMPARISON OF DIMENSIONAL CHANGES OF INJECTION-MOLDED AND CONVENTIONAL (COMPRESSION MOLDED) HEAT-CURED ACRYLIC RESIN

ABHAY H. MACHCHHAR, SHERIN CHERIAN

GOVT. DENTAL COLLEGE AND HOSPITAL, AHMEDABAD

Dimensional changes occur during polymerization of acrylic resin denture bases. This study was done to compare the dimensional changes that occur using two different curing techniques – Compression molding and Injection molding. 20 specimens were fabricated for each group. For conventional compression molding technique (SR-Ivocap Triplex Hot) material was used and for Injection molding technique (SR-Ivocap High Impact) material was used. Dimensions of each specimen were measured and compared. After each water storage period, the acrylic resin specimens fabricated using injection molding technique exhibited less dimensional changes than specimens made using compression molding technique. Injection molding technique produces more dimensionally stable specimens thereby improve physical properties of denture bases..

EFFECT OF DIFFERENT FIBERS ON POLYMERIZATION SHRINKAGE OF POLYMETHYLMETHACRYLATE DENTURE BASES IN THE POSTERIOR PALATAL SEAL AREA.

ABHISHEK S. SARDA, ANOOPSARAN HARESH BHOJWANI

BHARATI VIDYAPEETH'S DENTAL COLLEGE & HOSPITAL, NAVI MUMBAI

The retention of the complete denture is directly related to the adaptation of the base to the supporting oral tissues and is maximised when there is more intimate adaptation with the oral tissues. Polymethyl methacrylate (PMMA) based acrylic resin is used popularly for the fabrication of denture bases. In a clinical situation, decreased gap between the denture base and the tissue surface contributes to improved denture retention. The disadvantage of PMMA is polymerization shrinkage that occurs during processing. Its effects are particularly noticeable in the post-palatal seal regions of maxillary complete dentures. The chief reasons cited for the lack of adaptation of the denture base in post-palatal seal region of maxillary dentures are the volumetric shrinkage of resin and the reduced thickness and bulk of the denture base in the overlying area. Shrinkage of the denture base material is observed as a pulling away from the cast in the posterior mid-palatine area. The conventional processing technique causes polymerization shrinkage. As shrinkage occurs it breaks the retentive peripheral seal of the denture which affects the retention and stability of the denture.

EVALUATION OF CELL PROLIFERATION ON ELECTROLYTIC STIMULATION OF NOVEL HYDROGEL

ADARSH VARMA R, TEJASHREE CHOUGULE

V K INSTITUTE OF DENTAL SCIENCES, BELAGAVI

Bone healing happens in 3 phases over a period of minimum 12 weeks. As the healing progresses soft callus is replaced with hard bone. Various methods are being tried to bring about accelerated bone growth and one of them which gave excellent results are the endogenous and exogenous electric signals applied to the host. An extrinsic electrical stimulation functions as an imitator of the endogenous electronegative properties of the living bone to increases its capacity to heal hence here we subjected a hydrogel which is a combination of CHITOSAN-HYALURONIC ACID AND MORINGA where CHITOSAN and HYALURONIC ACID forms POLYELECTROLYTIC COMPLEX which has positive and negative charges and responds to the electric and magnetic fields by bringing about the bone growth. The novel hydrogel with MG63 cells was exposed to low-frequency electric field in a parallel plate capacitor system. To bring about the electrical stimulation. Later, the cell culture was subjected to MTT assay, Viable cell count was obtained with evaluation of cell growth and differentiation and the calcium deposition was studied using the Von Kossa's staining. The results indicated NO cytotoxicity and the cell response and proliferation was found to be better than the control group with minimum induction of electrical stimulus.

BRIMMING THE BEST STERILIZATION-AN INVITRO STUDY

AJMAL KHAN KATTAK S, SHINTO THOMAS

MALABAR DENTAL COLLEGE, MALAPPURAM, KERALA

Introduction: Infection control is very important in dentistry. Both dentist and patients are at risk of communicating diseases during treatment procedures. Dental burs have been identified as a source of cross-contamination between patient and dental personnel. AIM & OBJECTIVE: evaluate the efficiency of the glass bead sterilizer for sterilization of instruments used for tooth preparation. MATERIALS AND METHODS: This study is done with dental handpiece, burs, mouth mirror, gingival cord packing instrument, used for tooth preparation after sterilization they were evaluated. BACKGROUND: Glass bead sterilizer is primarily used for sterilizing small handed instruments in dentistry. These units kill most of classes of fungi, bacteria and virus. It provides unique challenges to maintain sterile instruments in a practical and cost effective manner. Even though autoclave is the gold standard method of sterilization glass bead sterilization is one of the older sterilizing methods, still now it is used as chair side sterilizer of hand instruments. CONCLUSION-this study strongly recommends the use of glass bead sterilizer as a state of art method for rapid chair side sterilization efficiency and for routine use.

COMPARATIVE EVALUATION OF ACCURACY AND FINISH LINE DISTINCTION AMONG 3 INTRAORAL AND 3 EXTRAORAL SCANNERS; AN INVITRO STUDY

ALMAS GULAM HUSSAIN SHAIKH

GOVERNMENT DENTAL COLLEGE AND HOSPITAL, NAGPUR

Large amount of studies have been conducted on evaluation of accuracy of Computer aided designing Computer aided manufacturing (CAD CAM) scanners. But data is lacking regarding variation between intraoral scanners (IOS) and extraoral scanners (EOS) systems in depiction of critical finish line and finish line accuracy. This study aims on evaluating level of finish line accuracy(precision + trueness) and depiction of finish line by 3 IOS (CS 3500 and CS 3600 Carestream dental Rochester NY USA, CEREC omnicam sirona Beinsheim) and 3EOS / lab scanners (Ceramil MAP 400, Amann girbach, vorarl berg, Austria), Hybrid identical, Medit corp and MCX5 Sirona dentsply Germany). Ivory teeth with tooth preparation done on mandibular first molar having subgingival and supragingival finish line prepared with AF 350 Amanngirbach hand milling unit and the model is scanned with tomographic industrial scanner to get reference scan data. Null hypothesis generated through reference studies states that there is no such difference present between scanners. Data analysis is being done by aligning the reference scan and experimental scans, using best fit alignment and is compared using 3D Software GEOMAGIC CONTROL X 2017, 3D STUDIO GERMANY. Using the function of deviation analysis, the geomagic software exported an analysis report displayed in a colour map.

COMPARATIVE EVALUATION OF EFFECT OF HERBAL AND NON-HERBAL MOUTH RINSES ON THE SURFACE ROUGHNESS OF INDIRECT COMPOSITES RESIN-AN INVITRO STUDY.

ANAND V

INDIRA GANDHI INSTITUTE OF DENTAL SCIENCE, PUDUCHERRY

Indirect composite materials are used in prosthodontics for a variety of clinical applications, including inlays and onlays, laminated veneers, jacket crowns, implant-supported restorations. They are also used for anterior veneers and bridges as it requires minimal tooth preparation, less technique sensitive and cost effective. The increasing awareness of oral hygiene in today's society has resulted in the extensive use of mouth rinses. This study aims to find the effect of herbal and non-herbal rinses on the surface roughness of an indirect composite resin. 48 indirect composite samples were made using a standard acrylic mold. These samples were viewed under 10x stereomicroscope and polished until a scratch free surface is obtained. The samples were then immersed in two herbal and two non-herbal mouth rinses. The pre-immersion and post immersion surface roughness were measured and statistical analysis was done. The difference in the surface roughness created on the samples when immersed in these mouth rinses was seen to be statistically significant.

INFLUENCE OF GINGIVAL COLLAR HEIGHT AND TYPE OF LUTING CEMENT ON THE AMOUNT OF RESIDUAL EXCESS CEMENT IN IMPLANT RESTORATIONS: A CLINICAL STUDY

ANEESA T, MEENU PAVANAN

GOVT. DENTAL COLLEGE, CALICUT

Implant dentistry has been an accepted treatment modality for replacing missing teeth since last few decades. Implant restorations can be screw-retained, cement retained, or a combination of both. A major problem of cement retained prosthesis is the difficulty of removing residual excess cement. The aim of this study was to evaluate the amount of residual excess cement (REC) left undetected in implant restorations with different gingival collar height and to compare this with different types of implant luting cements. Thirty implant sites were selected from patients willing to undergo for study during the treatment for implant supported fixed prosthesis. They were classified into three groups based on the depth of gingival collar height as GROUP I(<2mm), GROUP II(2-4 mm) and GROUP III(>4mm). A straight abutment with shoulder finish line, a modified metal ceramic crown and three types of implant luting cements (Resin cement, Glass ionomer cement and Zincoxide noneugenol cement) were used in the study. The excess cement formed was collected and measured with an analytical balance and recorded. The measurements were subjected to statistical analysis. Based on this study we concluded that the amount of residual excess cement formed by all the three types of luting cements used in the study showed statistically significant increase as the depth of the gingival collar height increased. When comparing the residual excess cement formed by three implant luting cements in a group, it was significantly greatest for resin cement and lowest for zincoxide noneugenol cement.

COMPARATIVE EVALUATION OF MICROLEAKAGE AT IMPLANT ABUTMENT CONNECTIONS BETWEEN TWO TYPES OF ABUTMENTS UNDER OCCLUSAL LOAD: AN IN VITRO STUDY.

ANJALY ARAVIND, ANJANA THOMAS

ANNOOR DENTAL COLLEGE, KERALA

One of the most widely accepted prosthetic treatment modalities for the replacement of missing teeth for restoring human masticatory function is dental implants. It has been noticed that there is wide variety of implant and associated prosthetic components available in the market. The abutment and the implant body are the two main parts of most dental implant systems. Due to the penetration of microorganisms, microgaps between the implant–abutment interface may cause microbial leakage. This penetration will result in bacterial colonisation through plaque formation at the interface of the implant–abutment complex, which will ultimately lead to inflammation in peri-implant soft and hard tissues. The study of implant–abutment connection is of great importance because it is the primary determinant of the strength and stability of an implant-supported restoration, which, in turn, determines the restoration's prosthetic stability. The present study evaluates the existence and rate of microleakage at implant abutment connection and compares the microleakage at implant-abutment interface between castable and prefabricated (custom made) abutments for a standard internal hex connection under occlusal load at different time intervals.

“CARUM CARVI – A POTENT ALTERNATIVE FOR TREATMENT OF DENTURE STOMATITIS

ANKITA SRIVASTAVA

MANIPAL COLLEGE OF DENTAL SCIENCES, MANIPAL

Denture Sore Mouth (DSM) or Denture Stomatitis is found in 24-60 percent of denture wearers. Tissue conditioner is the most widely used modality of treatment for the abused tissues, ill-fitting denture, relining of immediate denture and other clinical applications. It is usually associated with Candida species especially Candida albicans. Therefore, anti-fungal agents were incorporated in the tissue conditioners to prolong its contact to produce the effect. The side-effects and chances of developing resistance to the drugs led to the advent of adding natural or herbal products. They provide significant advantages over chemical products as they are cheap, readily available and have minimal side effects. Carum carvi have been used as an antiulcerogenic, anthelmintic, antitumor, antiproliferative, antihyperglycemic and antimicrobial. It is used in phytomedicine as antifungal, molluscicides and anti-inflammatory. It contains carvone and limonene which are responsible for its anti-candida activity. The minimum inhibitory concentration of Carum carvi is proven to be 0.25µl/ml. The extract of Carum carvi was manually prepared using Clevenger's apparatus. The aim of the research was to evaluate the anti-candida activity and physical properties of the tissue conditioner when incorporated with Carum carvi. The candida adherence was assessed using Scanning electron microscope and the surface roughness was analysed using Atomic force microscopy. It was found that the incorporation of Carum carvi extract demonstrated a potent anti-candida activity with superior physical properties. Hence, it was concluded that Carum carvi can be used as a potent anti-candida agent for the treatment of Denture Stomatitis.

CO-RELATION OF FREEWAY SPACE USING PHOTOGRAPHS AND CEPHALOMETRY

ANSHUMALI, ROMA ARUBAM

SARDAR PATEL PG INSTITUTE OF DENTAL AND MEDICAL SCIENCES, LUCKNOW

Aim: To determine a co-relation of freeway space using lateral profile photographs and cephalometric approach in North Indian population and establish a linear regression equation. Conclusion: The Pearson correlation analysis showed significant and high positive (direct) correlation between Sn-Me photograph and Sn-Me cephalogram suggesting that increase in one may be associated to increase in other and visa-a versa. In contrast, both Sn-Me photograph and Sn-Me cephalogram showed significant and high negative correlation with FWS clinical indicating that these may predict the FWS. Further, regression analysis showed both Sn-Me photograph and Sn-Me cephalogram alone can predict FWS significantly.

EVALUATING THE ANTIFUNGAL EFFICACY OF GARLIC EXTRACT INCORPORATED IN TWO PROPRIETARY BRANDS OF DENTURE CLEANSERS- AN INVITRO STUDY.

ANURADHA VIKAS PAWAR, LEEBA THOMAS

KLE VKIDS, BELGAUM

Garlic has been used as medicine since ancient times and has known to have antibacterial, antifungal and antiviral properties. Many studies have been conducted to check the antimicrobial effect of garlic in dentistry. Geriatric patients with dentures mainly deal with candidial infections (candidia associated denture stomatitis). Comparative studies of effect of garlic extract in a mouth wash versus chlorhexidine mouth wash revealed that garlic extract is equally effective as chlorhexidine mouth wash. Thus the side effects of chlorhexidine can be replaced with garlic extract mouth wash. This study was undertaken to check the antifungal activity of garlic extract incorporated in two denture cleansers against candida albicans. Thus it was concluded that the denture cleansers incorporated with garlic extract gave significant results against candida albicans as compared to the 2 proprietary brands of denture cleansers (control group).

AN IN VITRO STUDY TO EVALUATE AND COMPARE THE EFFECT OF PHOTODYNAMIC THERAPY, LASER AND TETRACYCLINE SOLUTION ON DECONTAMINATED DENTAL IMPLANTS – A PILOT STUDY

ANUSHA H P, ASHWITHA SALIAN

SDM COLLEGE OF SCIENCES AND HOSPITAL, DHARWAD

Objectives: Peri-Implantitis is a common long term complication of dental implant treatment which leads to implant failure. Hence to promote osteointegration etiological treatment of peri-implantitis should be aimed to reduce bacterial infiltration. Thus various method has been used to treat peri-implantitis. The purpose of this study is to evaluate and compare the effects of photodynamic therapy laser and tetracycline solution on decontaminated dental implants. **Materials and Methods:** The study involves 15 titanium dental implants, low level laser, photosensitizer, tetracycline solution. The sterile implants will be carefully removed from the cases provided by manufacturer using titanium implant plier. These dental implants will be contaminated with *Staphylococcus aureus*. Once the implants are contaminated they will be further analyzed for decontamination using different procedures. The dental implants will be divided into 3 groups. Group 1 (n=5) decontamination using laser. Group 2 (n=5) decontamination using tetracycline. Group 3 (n=5) decontamination using photodynamic therapy using toluidine blue as photosensitizer. Bacterial decontamination will be quantitatively analyzed by culture medium and colony forming units. these will be performed by microscopic examination. the obtained data will statistically analyzed. **Results.** It is an ongoing study and the results will be concluded further.

“COMPARATIVE EVALUATION OF SAGITTAL CONDYLAR GUIDANCE OBTAINED FROM A CLINICAL METHOD - PROTRUSIVE INTEROCCLUSAL RECORD AND A RADIOGRAPHIC METHOD - CONE BEAM COMPUTED TOMOGRAPHY” – AN IN VIVO STUDY.

ARINDAM MUKHOPADHYAY

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Condylar path is the path traversed by the condyle in relation to the articular eminence during various mandibular movements. Condylar guidance is the mechanical form located in the upper posterior region of an articulator that controls the movement of its mobile member. The purpose of protrusive jaw relation is to set the condylar elements of the articulator so that they will reproduce inclinations, which are comparable to that of the patient's temporomandibular articulation. However, many practitioners rely on average values of condylar guidance, which range from 22 degrees to 65 degrees. If the individual inclination of the articular eminence is very steep or flat, guidance derived from the mean value settings may vary sufficiently leading to occlusal interferences during mandibular movements. It can be determined by various methods including inter-occlusal records, pantographic tracings, electronic jaw tracking devices and different radiographic methods. Studies have shown that compared to clinical methods, radiographic measurement involves stable bony landmarks, which can be standardized and are more accurate than other methods. However, there is little evidence in literature to suggest it in comparison with the prevalent methods. It can be argued that application of advanced imaging is unwarranted in Prosthodontics. But recently, Cone Beam Computed Tomography (CBCT) have made them safer, more accurate and comparatively cheaper resulting in their widespread application. This study, therefore aims at comparing condylar guidance measurements made using a conventional clinical method - protrusive inter-occlusal record and a radiographic method - CBCT in healthy adults.

EFFECTS OF HEAT TREATMENT AND FIRING CYCLES ON MARGINAL FIT OF ROUNDHOUSE IMPLANT SUPPORTED SLM PROSTHESIS – AN IN VITRO STUDY”

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The importance of marginal fit between implants and prosthesis' framework has been discussed extensively. When planning complete-arch implant supported rehabilitation, different Prosthodontic designs may be selected, such as multiple segmented frameworks or one complete arch piece, either screw or cement retained. In cases where the number or the positioning of implants does not allow the fabrication of a segmented framework, a complete arch, one-piece-fixed partial denture (FPD) design has to be chosen. In such cases, the achievement of a clinically acceptable marginal fit is more difficult. Studies also show that the longer the fixed partial dentures are, the larger is the risk of distortion. The fabrication of Co-Cr & Ti-Al restorations through conventional casting with lost wax technique results in increased number of errors due to multiple steps involved in the production. The SLM technique allows enhanced processing versatility and simplified production process. However, when the prosthesis fabricated by selective laser melting is subjected to repeated firing cycles, there can be a possibility of discrepancy in marginal fit, which is essential for the success of a roundhouse implant supported bridge. Minimal data is available on the effect of repeated firing on the marginal accuracy of roundhouse implant supported bridge. Therefore the purpose of this study is to evaluate the effect of heat treatment and repeated firing cycles on the marginal fit of roundhouse implant supported bridge fabricated using two different alloy

CHITOSAN BIOMATERIAL: A NEW ALTERNATIVE TO CHEMICAL DENTURE CLEANSERS

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Denture care is an indispensable element of general health of the denture wearers. Studies have shown that the prevalence of candida species increases upto 60 to 100 % in denture wearers. Candida albicans possess surface free energy closer to that of poly methyl methacrylate and display an affinity for the adherence to the tissue surface of the dentures. Hence, mechanical cleaning of dentures in conjunction with cleansers is mandatory in efficient removal of denture biofilm. Although there are different chemical denture cleansers, an efficient easily available biological alternative is not available. It was pointed out that the ingredients of chemical cleansers cause local and even systemic reactions. Immersion in chemical cleansers have also shown to effect the mechanical properties of the denture base resin such as flexural strength, colour stability etc. Chitin, which is a naturally abundant and renewable polymer derived from shells of crustaceans, arthropods and fungal cell wall, has excellent antifungal and antibacterial properties. This is obtained as a by-product of fishing industry. Chitosan is obtained by partial deacetylation of chitin. The biocompatibility, biodegradability and lack of toxicity of chitosan along with the antimicrobial property has led to its usage in various fields such as medicines, cosmetics, food, agriculture etc. However, the use of chitosan as a denture cleanser was never investigated. Hence, this paper aims at evaluating the antifungal activity of chitosan and its influence on the mechanical properties of denture base resin when used as denture cleanser.

PROTOTYPE TO ARREST TRAY DEVIATION DURING PLACEMENT

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AIM. Comparing the impression made with a conventional stock tray and using a new prototype impression template. **SAMPLE SIZE.** 1. 5 conventional impressions. 2. 5 impression made using the template. **MATERIALS & METHODOLOGY.** 1. Impression template. 2. Stock trays. 3. Elastomeric impression materials. To obtain an impression with the prototype template, the head movements are arrested. A vertical bar is positioned parallel to the long axis of the face which permits only the movement of the impression tray and the impression tray holder on the y axis. The Impression tray holder which is attached to the vertical bar is adjusted according to the occlusal table of the maxillary teeth. Appropriate tray selection is done. The selected tray is loaded with the elastomeric impression material (putty and spacer) and impression is made using the template. Impression tray is then removed after material sets and wash impression with light body is made in the similar way (dual impression technique). The template offers the same stable path of insertion of the impression tray thus eliminating the errors due to midline shift or wrong path of placement during wash impression and also helps in even pressure throughout the tray. The impressions are then made in the conventional method and both were compared. **RESULTS.** The impressions made using conventional method showed some degree of midline shift whereas the impressions made using the template had minimal or nil midline shift. The $p < 0.05$ and results were statistically significant.

AN IN-VITRO COMPARATIVE EVALUATION OF MARGINAL INTEGRITY AND AXIAL WALL ADAPTATION OF PROVISIONAL RESTORATIONS FABRICATED BY CAD/CAM WITH MANUALLY FABRICATED PROVISIONAL RESTORATIONS.

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Provisional restorations are fixed prosthesis, designed to enhance esthetics, stabilization and /or function for a limited period of time, after which it is to be replaced by a definitive prosthesis. One of the most important requirements for the provisional restoration is good adaptation. Polymerization shrinkage of provisional restorative materials can jeopardize the marginal integrity and axial wall adaptation. A lot of literature could be found for manually fabricated provisionals on the contrary less literature was found for CAD/CAM based provisional restorative materials. Hence, this study was planned to compare & evaluate the marginal integrity & axial wall adaptation of provisional restorations fabricated by CAD/CAM with those fabricated by self cure & light cure provisional restorative materials. A stainless steel model of prepared tooth was fabricated. The impression of the model was made using rubber based impression material & was poured with epoxy resin die. This die was sent to the laboratory to fabricate 10 CAD/CAM based provisional crowns and the rest 20 were made using self cure & light cure provisionals. The crowns were then thermocycled 100 cycles at 5° to 55° & sectioned from mid-buccal to mid-lingual surface. The sectioned samples were visualized under stereo microscope of 40x. The statistically calculated results will be discussed in the presentation.

A COMPARATIVE EVALUATION OF THE LINEAR DIMENSIONAL ACCURACY OF POLYVINYL SILOXANE IMPRESSION MATERIALS AFTER DISINFECTION WITH CHEMICAL, AUTOCLAVE, MICROWAVE AND ULTRAVIOLET RADIATIONS -AN IN VITRO STUDY

BINDU VEERGANGADHAR NITALI, ASWATHI R

SHARAVATHI DENTAL COLLEGE AND HOSPITAL, SHIMOGA

Dental impressions are negative imprint of oral structures that is used as a permanent record in the production of dental restoration or prosthesis. Constructing a model or cast from accurate impression is an important step in numerous dental procedures. Various impression materials are available in dentistry for making impressions. Elastomers are more commonly used accurate impression materials. Dental impressions represent a potential hazard to spread of infections to dentist and laboratory personal. Therefore center for disease control and american dental association have published guidelines for infection control which include disinfection of all dental impressions before they are and sent to the laboratory. These infection control procedures may affect the dimensional stability of impression materials. Many studies have been conducted to determine the dimensional stability, accuracy, surface roughness and wettability of polyvinyl siloxane impression material after sterilization. But the effects of disinfection on the linear dimensional stability were not demonstrated. Also numerous studies have compared the dimensional stability. But no similar study compared the linear dimensional stability of polyvinylsiloxane impression materials after different sterilization and disinfection procedures such as chemical disinfection, autoclave sterilization, microwave disinfection and ultraviolet irradiation methods. So there was a necessity to determine the linear dimensional changes of polyvinylsiloxane impression materials after different sterilization and disinfection methods such as chemical disinfection, autoclave sterilization, microwave disinfection and ultraviolet irradiation methods.

EVALUATION AND CORRELATION OF INTERCANINE DISTANCE FROM 3D BITE MARK WITH ENDOCANTHION, EXOCANTHION, BIZYGOMATIC, INTER-ALAR, INTER-COMMISSURAL AND BIGONIAL WIDTHS USING PHOTOGRAPHS - AN IN-VIVO STUDY.

C. VIDYALAKSHMI, ASMATH JEHAN

SRM DENTAL COLLEGE, RAMAPURAM, CHENNAI

Objectives: This study was done to evaluate the correlation between the important facial landmarks and the intercanine distance from a bite mark. **Materials and Methods:** This study was conducted among the out patients who fit into the inclusion criteria from the Department of Prosthodontics, SRM Dental College, Ramapuram. The participants were asked to bite on clay, which, eventually, was scanned using 3D laser scanner LPX 600 to measure their intercanine distance. The facial landmarks were obtained from life size photographs of the participants and their possible relationship with the measured intercanine distance was studied using computer software. Based on their correlation, an empirical relationship was derived with an intention to extend the result for a larger population. **Result:** Statistical analysis, indeed, shows correlation between the facial landmarks and the intercanine distance. Further, the empirical justification that was performed provided results that were in favour of this relation. **Conclusion:** Thus through this study the interconnection of the intercanine distance and various salient measurements of the face can be used to find out the facial outline of the suspect.

EVALUATION THE RETENTION AND SURFACE ROUGHNESS OF TWO DIFFERENT SURFACE TREATMENTS ON THE ZIRCONIUM DIOXIDE.

DEEPAK KUMAR

SRI RAMAKRISHNA DENTAL COLLEGE &HOSPITAL, COIMBATORE

USING PROFILE PROJECTOMETER AND UNIVERSAL TESTING MACHINE WE EVALUATE THE SURFACE ROUGHNESS AND RETENTION OF ZIRCONIUM DIOXIDE WITH TWO DIFFERENT SURFACE TREATMENTS- SANDBLASTING 110 μ m AND LASER TREATMENT(ER;YAG).ZIRCONIUM BLOCKS(NEXXZR) WERE MILLED BY CAD-CAM AND SINTERED ACCORDING TO MANUFACTURER'S INSTRUCTIONS.THESE SPECIMENS WERE DIVIDED INTO THREE GROUPS ACCORDING TO THE FOLLOWING SURFACE TREATMENTS; GROUP A -NO SURFACE TREATMENT(CONTROL),GROUP-B SANDBLASTING(110 μ m),GROUP-C ER;YAG LASER SURFACE TREATMENT. THE SURFACE ROUGHNESS WAS MEASURED BY USING A PROFILE PROJECTOMETER AND THEN ALL THE SAMPLES WERE PLACED IN A HUMIDIFIER FOR 24 HOURS TO SIMULATE THE ORAL CONDITIONS AND THE RETENTIVE STRENGTH WAS MEASURED BY USING UNIVERSAL TESTING MACHINE TO SIGNIFICANTLY IMPROVE THE BOND STRENGTH TO THE RESIN CEMENT.

COMPARATIVE ANALYSIS OF COLOUR STABILITY BETWEEN LITHIUM DISILICATE CERAMICS AND ZIRCONIA REINFORCED LITHIUM SILICATE CERAMICS AFTER IMMERSION IN COMMON BEVERAGE AND FOOD COLORING AGENT- AN IN VITRO STUDY

DEEPTIMOYEE GHOSH

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Changes in the restorative treatment patterns, as well as the introduction of new and improved restorative materials and techniques have led to an increased demand for esthetic dentistry. The colour of an esthetic restoration and its stability is important to its long-term success. Lithium disilicate has become popular for esthetic rehabilitation and is characterized by exceptional translucency. Preserving the colour of lithium disilicate is an essential determinant for the long-term clinical success of such restorations. Recently, zirconia reinforced lithium silicate ceramics has been introduced. Utilization of zirconia (10 % by weight) as a core material, has enhanced the mechanical properties of all-ceramic restorations. Glazing before the definitive cementation is important for the colour stability and stain resistance of ceramic restorations. However, occlusal adjustments after cementation of the final restoration, result in removal of the glazed layer, thus increasing the surface roughness. Rough surfaces reduce the amount of reflected light and consequently affect the colour of the restoration while increasing the chances for extrinsic staining. The purpose of this study is to compare the colour stability between lithium disilicate ceramics and zirconia reinforced lithium silicate ceramics between polished and glazed surface after immersion in common beverage and food coloring agent by a spectrophotometer..

AN IN- VITRO STUDY TO COMPARE THE FRACTURE RESISTANCE OF ENDODONTICALLY TREATED MOLARS RESTORED WITH FULL VENEER CROWN, ONLAY AND ENDO CROWNS

DHANANJAY ARORA

HARVANSH SINGH JUDGE INSTITUTE OF DENTAL SCIENCE, CHANDIGARH

Different preparations indicated for restoration of Endodontically treated teeth have their own drawbacks and limitations. This study is designed to assess the fracture resistance of teeth restored with conservative prosthetic restorations. Forty sound human molars will be selected and divided into four groups. Group 1 will be left intact (control), in all other groups minimal access cavity will be prepared analogous to a class 1 cavity preparation and root canal treatment will be performed thereafter, group 2 will be restored with full veneer crown after direct restoration of access cavity, group 3 with an Endocrown restorations will be fabricated in lithium disilicate and group 4 with Onlay restorations. Fracture resistance will be measured using a universal testing machine with load applied parallel to the long axis of tooth till tooth fractures. The mean loads of failure of each group will be statistically compared and the result will be assessed thereafter.

DENTURE ADHESIVE

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The success of complete dentures depends on sufficient retention. Denture adhesive are regularly used by denture wearers to improve the function of complete denture. We evaluated the effect of three different denture adhesives on the retention of maxillary complete denture using digital dynamometer. The retention test for control group, powder group, strip group, paste group was done using a customised force sensor device. Readings were subjected to ANOVA followed by post hoc test. Results show that the retention force value of strip group was the maximum, followed by paste group, powder group and the least retention force value was observed with control group.

EVALUATION OF THE FLEXURAL STRENGTH OF HEAT-POLYMERIZED POLY (METHYL METHACRYLATE) DENTURE RESIN REINFORCED WITH FIBERS

DHRUVI JOSHI, BOSKI GUPTA

DASWANI DENTAL COLLEGE, KOTA

Many approaches have been made to improve the flexural strength & fracture resistance of acrylic resin dentures by reinforcing them with various supplementary compositional materials. The purpose of the present study was to assess the effect of glass fiber (C & B) reinforcement and nylon fiber reinforcement on flexural strength of heat cured denture bases as compared to the flexural strength of conventional heat cure denture base resin without fibre reinforcement. Specimens of standard dimensions were prepared for each of the four experimental groups. Each group was further subdivided into two subgroups on the basis of storage conditions (dry and wet). All the specimens were then subjected to a 3-point bending test and flexural strength was calculated. Statistical analysis was carried out. Results suggested that the flexural strength of the glass fiber group was the highest among the three groups, followed by the control group, i.e. fibre free denture base resin, and the lowest being that of the nylon fibre reinforced denture base resin.

COMPARATIVE EVALUATION OF WATER SORPTION AND SOLUBILITY OF COMMERCIALY AVAILABLE SELF ADHESIVE RESIN CEMENTS – AN IN-VITRO STUDY

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The clinical success of ceramic restorations relies strongly on the cementation process. Resin-based cements are widely used luting materials and compared to conventional luting agents, these resin cements can achieve better marginal seal, show retentive capability and possess adequate physical and mechanical properties, such as increased fracture resistance of overlying restorations, along with an optimal esthetic result. More recently, new materials were introduced called self-adhesive resin cements that were applied directly to enamel and dentin without previous use of an adhesive system. They have been invented to simplify the resin bonding process. These products include acidic and hydrophilic monomers in their composition, which simultaneously demineralize and infiltrate enamel and dentin, resulting in a strong bonding. In the oral environment, there is more sensitivity of the restoration to moisture, increasing the risk of bond degradation and cement dissolution at the marginal gap. Thus the sorption properties of the resin cement materials have an important value in terms of durability of indirect restorations. Most of the previous studies examined the sorption and solubility of polymeric materials in different immersion media such as water, artificial saliva and ethanol. However, few researches have evaluated the effect of acids produced by human dental plaque such as lactic acid on these properties. Hence, in-vitro study was done to evaluate the sorption and solubility characteristic of some self-adhesive resin cements when immersed in distilled water and lactic acid. Results of the study will be discussed in the presentation.

COMPARISON OF ANTIBACTERIAL ACTIVITY, FLEXURAL STRENGTH AND SOLUBILITY OF DIFFERENT COMMERCIALY AVAILABLE GLASS IONOMER CEMENTS MODIFIED BY INCORPORATION OF ANTIBACTERIAL AGENTS -AN IN VITRO STUDY

DIVYA PARMAR

COLLEGE OF DENTAL SCIENCE AND HOSPITAL INDORE

ABSTRACT. TITLE – COMPARISON OF ANTIBACTERIAL ACTIVITY, FLEXURAL STRENGTH AND SOLUBILITY OF DIFFERENT COMMERCIALY AVAILABLE GLASS IONOMER CEMENTS MODIFIED BY INCORPORATION OF ANTIBACTERIAL AGENTS -AN IN VITRO STUDY. Glass ionomer cements (GICs) are currently the material of choice for permanent cementation of fixed dental prostheses. However, the probability of microleakage with GIC luted restorations remains a possible cause of failure till date. The incorporation of antibacterial agents in GIC may be a solution to this problem. Hence, this study is planned to evaluate the antibacterial efficacy of GIC after incorporation of antibacterial agents and their effects on the other properties of GIC if any..

IMPLANT-RETAINED AURICULAR PROSTHESIS: A CASE REPORT

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There has been a paradigm shift in the field of prosthodontics, need of multidisciplinary approach to cases has become main stay of practice and digitization with newer diagnostic modalities have made treatment outcome more reliable. In his case report a patient who lost his ear while serving in a remote inhabitable location was rehabilitated with implant retained prosthesis. Loss of ear lead to facial defect which resulted in no functional problem but some serious psychological problems that resulted in individual to avoid social contact. As a multidisciplinary approach OMDR specialist was consulted that modified CBCT imaging technique to provide 3D images of mastoid region and oral surgeons helped place 3 dental implants in the site. Conventional silicone prosthesis was not considered due to poor retention and need of additional adhesives. Post integration of dental implants a bar was fabricated to aid in retention. The prosthesis was made with RTV silicone and retained with bar and clips. The results left patient not just satisfied but thrilled as he returns to near normal life.

COMPARATIVE STUDY TO EVALUATE BONE LOSS AND ACCURACY AT OSTEOTOMY SITE USING SIMPLIFIED VS CONVENTIONAL DRILLING PROTOCOLS

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The success of the dental implant treatment has been built on the effective achievement and maintenance of Osseointegration. It has been clinically suggested that Osseointegration is dependent on various factors such as implant biocompatibility, design and surface state of the host bed, surgical technique, and loading conditions. One of the main objectives of the surgical technique is to obtain primary stability of the implant. The reduction of micromotion provides a basis for osteoconduction and subsequent bone remodeling. Movement at the micrometer range can induce a stress or strain that may hinder the wound healing process. Micromotion of more than 150 μm has been associated with bone resorption, fibrous tissue encapsulation, and inhibition of osteoblast growth, which can be the foundation for compromised Osseointegration. The steps of a surgical procedure may influence the interaction between the bone and implant in early phases of bone healing, and thus, it is of great interest to investigate. From a surgical perspective, the total surgical time of the simplified protocol from incision to closure would be significantly shortened and lead to fewer post-surgical complications. The purpose of this study is to compare the accuracy of osteotomy site preparation with simplified and conventional drilling protocols.

EFFECT OF DIFFERENT TIMES OF SEPARATION ON PROPERTIES OF TYPE III DENTAL STONE POURED INTO ALGINATE IMPRESSIONS INCORPORATED WITH ANTIBACTERIAL AGENTS

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AIM:To evaluate the surface roughness, hardness and surface detail reproduction of type III dental stone models obtained from two commercially available alginate impression materials incorporated with antibacterial agents after different times of separation. **OBJECTIVES:** To evaluate how different times of separation and incorporation of antibacterial agents into alginate impression materials will affect the Surface roughness, Hardness and Surface detail reproduction of Type III Dental stone models. The times of separation considered in this study will be 30 minutes, 9 hours and 24 hours respectively and the antibacterial agents used will be Chlorhexidine Digluconate, Povidone Iodine and Benzocaine. **MATERIALS AND METHODS:** Two different commercially available alginate materials (chromatic and regular) will be incorporated with three antibacterial agents i.e Chlorhexidine Digluconate, Povidone Iodine and Benzocaine prior to making impressions. The impressions will be made of a stainless steel die (ANSI/ADA specification no.18) and these will be poured with Type III Dental stone. The model will be separated from the impressions after 30 min, 9 hours and 24 hours respectively and these models will be tested for Surface roughness, Hardness and Surface detail reproduction. **CONCLUSION:** This is an ongoing study and the results will be accordingly tabulated and presented after the completion of the study.

REHABILITATION OF ACQUIRED MAXILLARY DEFECTS – A CASE SERIES

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Maxillectomy defects can result in oro antral communication that causes difficulty in swallowing, deglutition, impaired speech and facial disfigurement. Obturator prostheses are fabricated to seal these congenital and acquired defects of maxilla and depending on the extent of defect this type of prostheses may vary in size and shape. The Prosthodontist plays an important role in rehabilitation of such defects. This paper describes clinical reports of patients with acquired maxillary defects rehabilitated with obturator prostheses.

ANALYZING THE EFFECT OF ANTI-ASTHMATIC INHALER MEDICATION ON THE COLOUR STABILITY OF POLYMETHYLMETHACRYLATE DENTURE TEETH: A COMPARATIVE IN-VITRO STUDY

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AIM. To investigate the effect on anti-asthmatic inhaler medication on the colour stability of acrylic resin teeth (PMMA) used for dentures. **MATERIALS AND METHODOLOGY.** A comparative in-vitro analysis was done using cross-linked polymethylmethacrylate teeth, produced in two chromatic layers [Group A (n=90)] and three chromatic layers [Group B (n=90)]. Each group was sub-divided into 3 based on the type of tooth : anteriors, premolars and molars. Spectrophotometric values of the samples were recorded at baseline and at the end of the test period. The control comprised of denture teeth stored in artificial saliva. The acrylic teeth were exposed to salbutamol sulphate in metered doses of 100 mcg using a spacer and then stored in artificial saliva. The application was done twice a day for 6 months. Color change (Delta E) was calculated using the CIE 2000 formula. Statistical analysis was carried out using one way ANOVA and independent sample t-test. **RESULTS.** Treatment with salbutamol sulphate was found to effect a colour change ($p < 0.05$) on both the two and three layered chromatic teeth when compared with controls. However the inter-group differences were found to be non-significant. **CONCLUSION.** Within the limitations of the study, it was concluded that anti-asthmatic inhaler medication could potentially impact the colour stability of both two and three chromatic layered PMMA denture teeth. **KEYWORDS:** Salbutamol sulphate, polymethylmethacrylate teeth, spectrophotometer.

COMPARITIVE ANALYSIS OF BIOMECHANICAL BEHAVIOR OF POLY ETHER ETHER KETONE DENTAL IMPLANT FAMILY: A 3-DIMENSIONAL FINITE ELEMENT ANALYSIS

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The use of dental implants to provide support for replacement of missing teeth has a long and multifaceted history. In the past few years research on dental implant designs, materials and techniques has increased and is expected to expand in the future due to the recent growth of the global market for dental implants and the rising in the demand for cosmetic dentistry. PEEK (Poly ether ether ketone) is one such material which was introduced to improve the biomechanical efficacy. In 1992, PEEK was used for dental applications, first in the form of aesthetic abutments and later as implants, since then many variations in composition have been carried out to modify and improve upon working characteristics of the implant. The basic PEEK implant has been reinforced to improve its quality, which lead to the modification of basic PEEK implant. Thus 4 conventional composite PEEK implants were evolved: Carbon fibre reinforced-PEEK, Glass fibre reinforced-PEEK, Hydroxy apatite PEEK, Strontium reinforced hydroxy apatite PEEK. This paper focuses on the biomechanical efficacy of 5 PEEK dental implants consisting the basic PEEK and the 4 conventional composite dental implants by using three dimensional finite element analysis with respect to two different bone densities.

TIMING DENTURE RETENTION

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Denture retention is influenced by many factors among which wetting of the denture bases with saliva is an important one. Polymers including PMMA are poorly wetted by liquids like water, saliva etc...and it has been hypothesized that the wetting of the denture base may improve after contact with oral fluids because of the adsorption of certain components of the saliva on the polymer surface. But this adsorption is time dependent. The goals of this study were-. 1. To investigate if the wetting of the denture base and thereby its retention, would increase with time owing to adsorption of salivary components. 2. To determine the time taken by saliva to wet the surface of dentures thereby improving their retention.

BIOACTIVE GLASS- A NOVEL BIOSTATIC MATERIAL

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Bioactive glass or bioglass is a novel biocompatible material that has been increasingly used in the recent times in different dental materials because of its favourable properties like remineralisation and hydroxyapatite layer formation. Recent data has brought to light another important property which is its antimicrobial property. This property has been made use of by incorporating it in luting cements, restorative composites, root canal sealers, tissue conditioners and various other dental materials. Polymethyl methacrylate resin forms a major component in the field of prosthodontics. Although this material has fulfilled all the requirements to be an ideal denture base material, its susceptibility to microbial colonisation has always been a matter of concern. Therefore this study is an attempt to identify if Bioglass particles can be incorporated into denture base resins to impart antimicrobial action.

A PROPOSED LINEAR SKELETAL DISTANCE TO PREDICT OCCLUSAL VERTICAL DIMENSION: A CEPHALOMETRIC STUDY

KANCHAN

GOVERNMENT DENTAL COLLEGE AND HOSPITAL, NAGPUR

Though the focus in Prosthodontics has shifted from removable to fixed prostheses with implants riding high, but the concepts like jaw relation remain as the baseline providing foundation to arbitrate the decisions for all prosthetic rehabilitation procedures. Loss of tooth may decrease the lower facial height and the jaw complex. The essential role of prosthodontics is to restore facial appearance, function, and masticatory ability and to maintain the patient's oral and general health. Different methods are used to restore the Occlusal vertical dimension (OVD) during prosthodontic treatment. A more accurate technique, therefore, is required to gain more precise and reproducible measurements of the OVD. The use of cephalometric radiographs has been suggested as a useful method of predicting the OVD by determining the correlation between certain craniofacial components (points, lines, and/or angles), which remain relatively unchanged after tooth loss. The aim of this study is to determine OVD by cranio-facial measurement using cephalometric analysis. Digital cephalometric radiographs with class I molar and skeletal relation were collected in JPEG format. The distance from nasion to sella and the distance from anterior nasal spine to menton were measured on the cephalometric radiographs, using ImageJ software.

APPRAISAL OF STUDENT'S PERCEPTION OF PROSTHODONTIC LEARNING ENVIRONMENT IN A TEACHING HOSPITAL IN MORADABAD, INDIA: A SURVEY

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Dental curriculum especially prosthodontics is vast which makes it difficult to visualize and correlate theory with practical aspects. In this regard, students constitute a stakeholder group that is able to provide unique information concerning effectiveness of the dental curriculum. Hence, a study was conducted to elicit and compare the differences in perception of the prosthodontic learning environment between the preclinical and clinical years of under-graduate curriculum and between under-graduate and post-graduate students of prosthodontics in a teaching institute in Moradabad, India. A total number of 400 students participated in the study. A 60-item closed-ended DCLES cross-sectional questionnaire was completed by the dental graduates of first, second, third and final year including interns and post-graduate students of department of prosthodontics. The questionnaire evaluated learning environment in seven areas. The data obtained was statistically analyzed and subjected to comparative evaluation. With regard to the perception of the prosthodontic learning environment statistically significant differences were found in flexibility, supportiveness, meaningful experience, organization and breadth of interest between pre-clinical and clinical years of undergraduate students ($p < 0.05$). When under-graduates and post-graduates were compared, significant differences were found in student to student interaction and emotional climate ($p < 0.05$). The study highlighted areas of strength and weakness from the student's perspective within a teaching dental institute. Identification of areas of concern can provide prosthodontic dental educators, a road map for quality enhancement, curriculum revision and increase student satisfaction with their dental education.

COMPARATIVE EVALUATION OF CLEANING EFFICACY OF DIFFERENT PRODUCTS ON CANDIDA ALBICANS CULTURED FROM COMPLETE DENTURE PATIENTS: A RANDOMIZED CONTROL TRIAL.

KARANPREET SINGH

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Human oral cavity harbors a number of microorganisms. Most the organisms do not harm us but there are other species that affect our health. Candida is one such organism. It is not considered harmful in healthy hosts but may cause opportunistic infections resulting in candidiasis. Old age necessitates wearing artificial dentures which results in changes in the oral environment and consequently oral flora. Dentures made from synthetic polymers like polymethylmethacrylate are micro porous in nature and, therefore, cause Candida to easily adhere and colonize. Denture cleanliness is thus of paramount importance to prevent the oral diseases among edentulous subjects. There has been a change in thinking globally, with a growing tendency to “go green.” Research has been focused recently on herbal medicines due to various reasons. There is very limited literature on use of herbal products as denture cleansers. The paper aims at the trail comparing the antimicrobial activity of triphala and neem with chlorhexidine on Candida albicans cultured from complete denture individuals. Swabs from complete denture patients are taken after immersion in the above mentioned solution and sent for microbiological investigation and the colony forming units are counted.

CAN DIGITAL TECHNOLOGY BE A FUTURE REPLACEMENT OF GOTHIC ARCH TRACERS??

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Balanced occlusion is required to enhance stability of complete dentures. One of the factors affecting balanced occlusion is condylar guidance. In clinical practice, condylar guidance is most often determined by using intra oral or extraoral gothic arch tracers. But, recording condylar guidance in uncooperative patients, or in conditions of resorbed ridges (compromised stability) is challenging. To overcome this, digital technology might be an alternative.

RELATIONSHIP OF INTERCONDYLAR DISTANCES WITH INTERDENTAL DISTANCES OF MAXILLARY ARCH IN POSITIONING UPPER POSTERIOR TEETH

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Aim : To find out the relationship of intercondylar distances of maxillary arch in dentate individuals among males and females. **Materials and method:** 128 dentate subjects of age group 24 – 40 yrs with absence of severe crowding, trauma or orthodontic treatment and craniofacial syndrome will be selected. They will be equally divided into 2 groups; Group A consisting of males and Group B consisting of females. Interfacial distances will be measured by facebow. The mean intermediate soft tissue thickness of 9mm on either side of face is subtracted from interfacial width to obtain the intercondylar distance. The intercondylar widths will be correlated with intercanine and intermolar distances intraorally. The anthropometric measurements thus obtained will be statistically analysed to determine the importance of intercondylar distances as a guideline for complete denture fabrication in edentulous patients.

COMPARITIVE EVALUATION OF ANTIFUNGAL ACTIVITY AND DRUG RELEASE OF THREE ANTIFUNGAL AGENTS INCORPORATED INTO A RESIN BASED SOFT LINER – AN INVITRO STUDY

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Candida-associated denture stomatitis is a very common inflammatory process affecting about 60% of the subjects' carrier of prosthesis. Denture soft liners provides cushioning effect between denture base and tissue surface so as to improve comfort to denture patients with ridge atrophy, thin and non-resilient mucosa, etc. Soft Liners exhibit porous surfaces that are favorable for the growth of microbes such as C albicans. To keep the tissue surface free of microbes and debris, meticulous denture hygiene has to be maintained. To overcome the disadvantages of conventional cleansing methods, topical & systemic administration of antifungal agents, the method of incorporation of the antifungal agents into the denture liners was developed and found to be effective. A polymeric system for intraoral drug delivery and release of the drugs over a period was found to be beneficial in preventing candida infections. Chlorhexidine is a biguanide agent that showed antifungal activity against C.albicans and it is suitable for intraoral drug delivery when incorporated into polymeric system. The Triazole antifungal agents such as Posaconazole and Voriconazole have excellent in vitro activities against all Candida species isolated from patients wearing dentures. This paper describes the invitro study performed to evaluate and compare the antifungal activity and drug release of three antifungal agents incorporated into Resin based soft liner.

AEROSOL: AN INFECTIOUS VECTOR IN DENTAL PRACTICE

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. Professional interest has developed concerning aerosols which are produced in dental clinics and the potential for disease transmission to clinicians and patients. Aerosol is created when high-powered devices need compressed air and water to work effectively. Most procedures performed by the dental team have the potential of creating contaminated aerosols and splatter. Aerosols are tiny particles or droplets which remain suspended in air. These aerosols represent an infectious hazard due to their gross contamination with microorganisms and blood. A fourfold increase of airborne bacteria has been observed in areas where aerosol producing equipment was used. Aerosols can float in air for considerable time before being inhaled by clinicians and other patients. There is some evidence for greater prevalence of respiratory diseases and elevated antibody levels to *Legionella pneumophila* in dental workers. Oral bacteria have been detected two meters from the procedure field, indicating the existence of aerosolized oral bacteria in dental practice. Bacterial diseases, viral infections and other skin infections are caused by the microorganisms which were isolated in dental aerosols. Increased use of turbine hand pieces is responsible for decreased air quality in the dental office due to increased aerosol contamination. Reducing the aerosol production, microbial load in the water tubing container will reduce the chances of cross-contamination in the dental surgery. The aim of this study is to evaluate and compare the efficacy of preprocedural mouth rinses in reducing the levels of viable bacteria in aerosols.

DENTURE CLEANSING RECOMMENDATIONS BY DENTISTS AND DENTURE CLEANSING HABITS OF DENTURE CONSUMERS.

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INTRODUCTION- Tooth loss in any adult population is highly likely to increase as the population ages because the factors that leads to the loss of teeth- dental caries, loss of periodontal support, a history of dentalveolar trauma. Complete dentures are the most common treatment for the loss of teeth in a dental arch. Therefore, correct prosthetic use and care is of great importance to patients, not only for aesthetic and functional reasons, but also for health of supporting tissue and maintenance of the prostheses itself. The dentist must guide and motivate the patient in complete denture maintenance. The present survey will reveal approaches and preferences of general dentists regarding denture cleansing and their recommendations to the patients and denture cleansing habits of denture wearers. **OBJECTIVE-** The purpose of this survey is to study way of recommendations, denture cleansing aids preferred by dentists and denture cleansing habits of denture wearers in Nagpur. **METHODOLOGY-**The study involves a questionnaire survey conducted among the dentists and denture wearers of Nagpur. **RESULT-** The results which are analyzed will be discussed during the presentation and will evaluate the denture cleansing recommendations followed by the dentists and habits of patients regarding denture cleansing.

ANALYSIS OF THE PSYCHO-SOCIAL IMPACT ON THE STEM CELL ASSISTED TOOTH REGENERATION CONCEPT PROMOTED BY ONLINE VIDEO SOCIAL MEDIA - A WORLD WIDE WEB ANALYSIS

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The regeneration of adult teeth will be more practically possible in the near future with the help of tissue engineering and newer expansion in stem cell therapy. Contemporary dentistry or stomatology widely restores missing teeth by dentures or dental implants till date. Experimental studies with animal models have exposed that the tooth crown formation can be regenerated using tissue engineering techniques that merge stem cells and recyclable scaffolds. Regenerative procedures with their bio-compatible advantages, would significantly replace dental implants in future. Today, YouTube has become the object of scientific research in different subject areas. It is also evident that YouTube-uploaded videos are highly cited by people pursuing social sciences, computer science, arts and humanities, engineering, medicine and dentistry. This effective online video social media sufficiently helps people stay aware of various health concepts world wide. The aim of this study is to analyze the psycho-social impact on the stem cell assisted tooth regeneration concept promoted by this online video social media among the population world wide.

A COMPARATIVE STRESS ANALYSIS IN DIFFERENT PROSTHETIC DESIGNS FOR UNILATERAL DISTAL EXTENSION SITUATION : AN IN VITRO STUDY

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The presence of posterior free-end edentulous areas are one of the most prevalent findings in cases of partial edentulousness. A problem of support, retention and stability is usually associated with distal extension situations thus making it a challenging task for the clinicians. The use of posterior implants has been suggested for stabilization of the distal extension bases and to carry the retentive elements for partial overdentures. The placement of posterior implants if anatomically possible, converts the edentulous situation from a distal extension Kennedy's Class I or II situation to a more biomechanically favourable Kennedy's Class III category. This study aims to evaluate and compare different treatment options available for distal extension situations and to provide for efficient rehabilitation of the distal extension situation. On a prepared model with a distal extension situation, different prosthetic designs will be fabricated and analysis of micro-strain measurements around the tooth and/or implant abutment will be evaluated. Thus results obtained will act as a guide for providing better treatment options to the clinician, ensuring better prosthetic rehabilitation for distal extension situations.

A COMPARATIVE EVALUATION OF MECHANICAL PROPERTIES OF AUTOCLAVABLE AND NON-AUTOCLAVABLE VINYLPOLYSILOXANE IMPRESSION MATERIAL

MANU GUPTA

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Background and objectives: The purpose of this in vitro study was to evaluate and compare the tear strength and tensile strength of autoclavable and non-autoclavable vinylpolysiloxane impression materials. **Materials and methods:** Two Vinylpolysiloxane impression materials (Affinis and Aquasil) were evaluated. 20 specimens each for evaluating tear strength and tensile strength were fabricated for both Affinis and Aquasil. Half of the specimens of both impression materials were randomly selected and served as control groups. The rest half of the specimens underwent autoclave sterilization for Affinis and chemical disinfection for Aquasil. All the samples were tested after 24 hours using an Instron Universal Testing Machine and were loaded until failure. The differences in mean values were compared with control group and were analyzed using independent sample t-test ($p < 0.05$). **Results:** The results showed that autoclave sterilization and chemical disinfection had no significant effect on tear strength and tensile strength of both Affinis and Aquasil respectively. However, the tear strength and tensile strength of Aquasil before/after disinfecting was significantly higher than Affinis before/after autoclaving. **Conclusion:** Autoclave sterilization and chemical disinfection had no statistically significant effect on the tested properties of Affinis and Aquasil respectively. So, autoclave sterilization could be considered as an effective method of sterilizing impressions to eliminate all forms of microorganisms in case of Affinis and Aquasil can be disinfected without deterioration in its properties.

KNOWLEDGE AND ATTITUDE OF THE PATIENTS TOWARDS DENTAL IMPLANTS -AN INSTITUTIONAL STUDY

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Common oral conditions have been shown to have a substantial effect on well-being and quality of life. The loss of one or more natural teeth often results in disability, as essential daily living activities, such as speaking and eating are impaired, and also in handicap, for example, by decreased social interaction because of embarrassment associated with denture wearing. The main role of prosthodontics is the rehabilitation of patients after loss of teeth and oral function. There are generally no accepted rules about how to estimate need, demand or utilization of prosthodontic services in most situations, since individual preferences play a very important role. Even with excellent prostheses, many patients experience difficulty with denture retention, speech and mastication. However, with the advent of new technology more restorative options have become available thereby, changing the face of demand for prosthodontic treatment. Among these, implant treatment has come into focus, since it provides excellent long-term results in rehabilitation of partially or completely edentulous patient. This study will be undertaken to access the level of knowledge and attitude of patients toward implant treatment as an option for replacement of missing teeth. The study will be undertaken at the six institutes in Ahmedabad and Gandhinagar district. Data will be gathered using a self-administered structured closed ended questionnaire.

KEYWORDS: Dental implants, knowledge, attitude and patients

A RETROSPECTIVE STUDY TO EVALUATE THE FINAL INSERTION TORQUE OF THE IMPLANTS PLACED IN DIFFERENT SITES AND OF DIFFERENT DIAMETERS IN DEPARTMENT OF PROSTHODONTICS, ARMY COLLEGE OF DENTAL SCIENCES, SECUNDERABAD

MAYANK MOHAN MALRA, SHINU DANIEL

ARMY COLLEGE OF DENTAL SCIENCES, SECUNDERABAD

Objectives of the study:. The purpose of the study is to find out if any,.

- 1) To evaluate the correlation exists between sites of implant placement and the final insertion torque values achieved at the end of implant placement.
- 2) To evaluate the correlation between influence of implant diameter on the final insertion torque values

EVALUATION OF INFLUENCE OF ERBIUM-DOPED YTTRIUM ALUMINIUM GARNET LASER ON THE PUSH OUT BOND STRENGTH OF FIBRE POST CEMENTED WITH RESIN CEMENT: AN IN-VITRO STUDY

MONALISA BAIDYA

BHARATI VIDYAPEETH DENTAL COLLEGE, SANGLI

Intraradicular posts are often necessary for restoration of endodontically treated teeth. Fibre posts frequently fail due to debonding. Drilling during post preparation creates a smear layer consisting of gutta percha and remnants of root canal sealer. This smear layer covering the root canal surface directly affects the bond strength of dentin-resin interface. Proper irrigation or exposure to radiation removes the smear layer thereby increasing the strength of the cement bond with root canal dentin. So, this study has been carried out to compare the effect of Er-YAG laser and different irrigants in removal of smear layer to increase the bond strength of fibre post cemented with resin cement.

COMPARISON OF TONGUE PRESSURE ON HARD PALATE DURING SWALLOWING IN EDENTULOUS PATIENTS: AN INVIVO STUDY

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Tongue is a strongest organ of the oral cavity and it plays an important role in growth and development of the orofacial structures. The tongue is a powerful muscular organ that exerts strong pressure at frequent intervals during swallowing, mastication, speech and respiration. The contact between the tip of the tongue and hard palate acts as an anchor when the tongue holds the bolus in the oral cavity and propels it to the pharynx. The anchor function of the tongue is important for the improvement of swallowing pressure. Tongue pressure has been measured by pressure sensors which provides information about functional movements of the tongue during swallowing. This study enables us to get a visual feedback to promote motor learning of the subjects and to confirm whether or not the subjects can actually perform the movement aimed at by the therapist.

EVALUATING THE ACCURACY IN SHADE SELECTION BETWEEN DENTAL STUDENTS AND PROSTHODONTISTS

MUTHUKEERTHANA, S. LAWRANCE

SRI RAMAKRISHNA DENTAL COLLEGE AND HOSPITAL, COIMBATORE

The success of dental treatment is determined on the basis of esthetic and functional results. Esthetic success depend on the shade match of the restoration to surrounding tissues. The criteria for shade selection depends on dentist's skill, type of shade guide and lighting conditions. Few studies have examined the effect of dentist's physical and professional characteristics on shade matching. It is not easy to assess the differential effects of professional experience, age and eye fatigue as well as physiological variables such as color vision deficiency may lead to inconsistencies and bias. The aim of this study is to evaluate the efficacy and accuracy between dental surgeons and prosthodontists in shade selection.

OSSEODENSIFICATION WITH DENSAH: A HASSLE-FREE EXPANSION TECHNIQUE

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Lack of bone density has always been the biggest barrier to a dental implant procedure. Implant placement in such deficient bone conditions is challenging as it involves bone condensation. Osteotome technique is routinely followed, but the clinical decisions regarding the stability and osseointegration of implants positioned using this technique are conflicting and limited. To overcome this a novel biomechanical bone preparation technique called Osseodensification has been introduced utilising the Densah bur technology. This technique serves as a boon for placing implants in deficient bone facilitating ridge expansion and enhanced primary stability.

KNOWLEDGE, ATTITUDE AND PRACTICE OF BOXERS IN JABALPUR ON DENTAL TRAUMA PREVENTION BY MOUTHGUARD

NEHA MOHANTY

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Sports, particularly contact sports, represent one of the main causes of trauma with 19% of injuries involving head and face. Sports dentistry is one of the upcoming fields in dental profession. It involves the prevention and management of oro-facial injuries related to sports. Boxing is one such contact sport eliciting high risk oro-facial trauma. A properly fitting mouthguard is one of the most significant aspect in preventing orofacial injuries in boxing. The dentist plays a vital role in informing the athletes, coaches and their parents about prevention of facial trauma. The purpose of the study is to evaluate the occurrence of dental hard and soft tissue injuries during boxing as well as awareness and use of mouthguards among boxers in Jabalpur.

COMPARATIVE EVALUATION OF STRESS PATTERN AROUND TITANIUM AND ZIRCONIUM IMPLANTS - 3D (FEA).

NEHA VIJAYKUMAR, AKASH MITHRAN

SHARAVATHI DENTAL COLLEGE, SHIMOGA

Dental patients are becoming increasingly concerned with the materials coming into contact with their bodies and the impact of those materials on their health. Ideally dental implants used should be least toxic and least reactive. Titanium has been used as implant biomaterial since many years but it also has disadvantages of potential hypersensitivity and esthetics. To overcome these disadvantages of titanium implants, zirconia implants were introduced as an alternative to titanium. Zirconia is a non-metal ceramic material that is white in color and has all the traditional advantages of titanium. The long term clinical success of implants depends not only on implant biomaterial but also on the manner in which stress are transferred and distributed to the surrounding bone. Advances in finite element analysis (FEA) have made tremendous progress in its application to study stress pattern in implant prosthodontics. Finite element analysis has been used as an effective tool to evaluate the biomechanical properties of different types of dental implants. It has been widely used to model the design and functionality of dental implants and predict features of design optimization. This paper demonstrates the study of comparing the stress pattern in the bone surrounding titanium and zirconium implants.

EVALUATION OF TENSILE BOND STRENGTH OF RESIN CEMENT USED FOR CEMENTATION OF PEEK CROWNS NATURAL TEETH

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As the PEEK material is chemically inert, Surface modification and conditioning is mandatory before luting it with resin cements. The objective of the study is to determine the best combination of surface treatment and conditioning with two different types of systems. Samples of extracted teeth were selected and divided into two groups 1 and 2. The tooth were embedded in acrylic resin cylinder block till the level just below the cement-enamel junction. Fundamental principles were followed during tooth preparation. Each group were divided into two sub-groups. Surface treatment of the intaglio surface of the peek crowns were done with sand blasting with 50 microns for each sub-group. Adhesive bonding agent were applied and light cured before cementation of crowns. Two different resin cements were used for group's 1 and 2. The crowns were luted to their respective tooth with resin cement and excess cement was removed from the margins. Tensile bond strength of adhesion of PEEK crowns to tooth was evaluated with pull out test and results were statistically analysed.

COMMUNICATION: BEST WAY FOR A SUCCESSFUL RESTORATION - QUESTIONNAIRE BASED STUDY AMONG DENTAL PRACTITIONERS AND DENTAL LAB TECHNICIANS IN NAGPUR REGION.

OJAS ANAND GAJBHIYE, RICHA RANJAN SAHAI

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Aim. To examine the quality of communication between dental practitioners and dental technicians for fixed prosthodontics in Nagpur region. **Materials & Methods.** Pre-piloted questionnaire distributed to 100 Dental Practitioners and 20 Dental lab technicians in Nagpur region. Data was sought regarding the quality of written instructions and use of impression trays and materials for two varieties of fixed prosthodontics – porcelain fused- to-metal crowns, and conventional fixed partial dentures. The questionnaire was answered in a face-to-face interview and by email also. Data were analysed through parametric tests to identify significant values ($P < 0.05$). **Results.** Of the 120 participants surveyed, 90 (75%) answered to the questionnaire. Outcomes from this survey suggest that there is good communication among dentists and dental laboratories via work authorisation forms concerning disinfection of impression, clarity and accuracy of instructions, choice of impression material, choice of impression trays, choice of metal alloy, type of porcelain for use, and choice of margin and pontic design for the prosthesis. **Conclusion.** Data obtained from the responding laboratories included effectiveness of work authorisation forms. There were some comparable trends indicated by means of the moderate percentage of dental laboratories agreeing on lack of conversation via the dentists as reflected by using the work authorisation forms.

AN INVIVO COMPARATIVE EVALUATION OF CONDYLAR GUIDANCE VALUE FROM ADVANCED TOMOGRAPHY AND PANAROMIC RADIOGRAPH WITH INTEROCCLUSAL RECORD – ORIGINAL STUDY

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For a successful treatment outcome, a prosthesis has to be in harmony with the patients stomatognathic system. In edentulous subjects this is possible when the articulator is programmed according to the patient's condylar guidance to simulate the mandibular movements. Condylar guidance can be recorded clinically by various methods. Of these, gothic arch tracing and interocclusal records are commonly used. Several studies have shown that these methods are unreliable because of clinical error and these values have to be correlated with the values obtained through panoramic radiographs. With the advent of advanced tomography for dental applications, the condylar guidance values obtained may even give more accurate results than panoramic radiograph. So the main objective of the study is to compare the condylar guidance values obtained from the protrusive interocclusal records in semi adjustable articulator with those obtained by tracings from panoramic radiographs and advanced tomography in completely edentulous patients to find out which method is more reliable.

IN VITRO COMPARISON OF THE TENSILE BOND STRENGTH OF DENTURE ADHESIVES ON DENTURE BASES

PADMINI RANI

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With several denture adhesives available, it is important for prosthodontists to make appropriate patient recommendations. The purpose of the study is to evaluate the tensile bond strength (TBS) of three cream denture adhesives and one wafer denture adhesive on two denture base materials at five time intervals up to 24 hours. Three cream denture adhesives Fixodent (Proctor & Gamble™), Super Poligrip (GlaxoSmithKline™), OliviaFix Gold (Bonyf AG) and one wafer denture adhesive SeaBond(Combe™) will be tested with the Instron testing machine on two denture base resin cylinder models fabricated from two heat-polymerized acrylic resins (DPI and Meliodent). Laboratory prepared artificial saliva with mucin will be used for the control study. In accordance with ADA specifications, the TBS will be tested at 5 minutes, 3 hours, 6 hours, 12 hours and 24 hours after application of the adhesive. Maximum forces before failure will be recorded in mega pascals (MPa) and data will be subjected to a Two-way ANOVA ($P = .05$) using MINITAB software packages. Keywords: Denture adhesive, denture base, heat polymerised, tensile bond strength

IN VITRO STUDY TO EVALUATE AND COMPARE THE MARGINAL ADAPTATION OF CROWNS WITH DIFFERENT FINISH LINES USING ALL CERAMIC CAD/CAM SYSTEMS

PARISHA PATIL

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Ceramic restorations are widely used in dental practice to achieve the optimum esthetics demanded by patients. They offer better light transmission than other restorative options, which leads to improved reproduction of the colour and translucency of natural teeth. Computer-aided design/computer aided manufacturing (CAD/CAM) is increasingly being used by dental laboratories to fabricate dental prostheses. Marginal adaptation is one of the most important criteria for determining the clinical success of the dental restoration. Various factors such as design of finish line, method of fabrication of the restoration and materials used for fabrication of restoration affect the marginal fit of full crown restorations. This study compares the marginal adaptation of 3 types of all ceramic crowns: 1. Monolithic zirconia crowns. 2. Layered zirconia crowns. 3. Layered Lithium disilicate crowns. Manufactured using CAD/CAM systems for all ceramic crowns using 2 different finish lines; i.e. Heavy chamfer and Rounded shoulder which have been advocated for all-ceramic crowns and therefore have been chosen for this study. This study was conducted to evaluate the marginal adaptation of all ceramic crowns and effect of finish line designs on marginal adaptation using CAD/CAM system. Keywords: All ceramic crowns, Marginal adaptation, Finish Lines, CAD/CAM.

3D EVALUTATION OF FACEBOW TRANSFER OF THREE FACEBOW SYSTEMS: AN ORIGINAL STUDY

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In dentistry, orientation of maxillary cast in an articulator is a very crucial step, so is the face bow record. All spatial relationship of maxilla and mandible begins with its orientation on articulator same as in patient. A reference plane is established on face of patient with two posterior reference points located one on each side of face and one point is established on anterior aspect. Together these three points form horizontal reference plane, to which maxillary cast is oriented, recorded and transferred to articulator. If maxillary cast is articulated in a different spatial relation on articulator, discrepancy in arc of movements occur between patient and articulator. As prosthesis are fabricated on articulator as patient's laboratory substitute, significant interferences results in final prosthesis. Thus, an accurate record of maxillary cast becomes crucial whether its fixed removable dental prosthesis, aesthetics, full mouth rehabilitation, implants supported rehabilitation or complete dentures. This study evaluated the of accuracy of facebow transfer of three facebow systems in three dimensions with respect to CBCT obtained data as a gold standard.

SURVEY OF ESTHETIC PARAMETER IN RAJASTHANI POPULATION

POOJA JAIN, SWALPA SHARMA

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The esthetics of a smile is determined by various factors including symmetry, anatomy and position of teeth, periodontal visibility, and musculoskeletal relationships. In this survey of esthetic parameters in rajasthani population discussion about the criteria's as buccal corridor, golden proportion, smile line and deviation of dental midline from facial midline to right or left side will be done. In this study 200 subjects will be chosen from a localised area of rajasthan and photographs will be taken by placing patients head in frankfort horizontal plane and in natural light. Analysis will be done on the basis of the photographic criteria that how much the population follows these criteria without any orthodontic treatment. The results will be analysed on the basis of all the data collected from the population of all the criteria's and statistical analysis will be done and tabulated. This survey will be performed to check the prevalence of these criteria's in different population.

EVALUATION OF ANTIFUNGAL EFFICIENCY OF CITRONELLA OIL INCORPORATED IN ACRYLIC BASED SOFT LINER- AN INVITRO STUDY

PRANAV TULLE

BHARATI VIDYAPEETH DENTAL COLLEGE, SANGLI

Denture soft liners are mainly used for therapeutic purpose in patients who are not able to tolerate denture induced stresses. The major disadvantage of these materials is their lack of antimicrobial activity. Colonization of resilient liners with micro-organisms along with poor oral hygiene is commonly associated with denture stomatitis. *Candida albicans* is most commonly isolated microorganism from oral cavity of patients with denture stomatitis. Commercially available denture cleansers mostly contain chemicals which may hamper the properties of the soft liners. Hence, there is a need to reduce the fungal activity with the use of natural antimicrobials. Essential oils of *Cymbopogon* species are known to possess antifungal properties. This study evaluates the mean inhibitory zone (MIZ) and antifungal activity of *Cymbopogon nardus* (Citronella oil) on acrylic based soft liners.

THE EFFECT OF CHEWING SIMULATION ON SURFACE ROUGHNESS OF ENAMEL WHEN OPPOSED BY FELDSPATHIC PORCELAIN RESTORATION.

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Dental restorative materials are used in restoring form and function of teeth with carious lesions or non-carious tooth surface loss. Crown and bridge restorative materials are still widely used as indirect restorations due to reliable quality, ease of use and excellent aesthetics does ensuring its consistent outcome. As patients demand for better esthetics has increased, it is important that the restorative material should closely mimic patient's natural dentition. An Ideal restorative material is considered, in terms of their strength, appearance, biocompatibility and resistance to wear by opposing teeth or restorations. There is a positive relationship between the hardness and abrasiveness of these materials against teeth. Advances in current technology have enabled simulation of the human chewing cycle in a laboratory using specific loads and frictional forces exerted by a chewing simulator stems where the wear behavior of dental restorative materials in-vitro can be determined by using a 3D profilometer to overcome the foreseen difficulties in-vivo methods. The purpose of this in vitro study was to investigate the change in surface roughness of natural enamel after antagonist wear against feldspathic porcelain restoration through a simulated chewing test using a three-dimensional (3D) profilometer.

CLINICAL ANALYSIS OF SHORT IMPLANTS

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The posterior region of the oral cavity offers a challenging clinical scenario for rehabilitation with dental implants. The resorption of the alveolar ridge, poor bone quality, the presence of the inferior alveolar nerve, the maxillary sinus and high occlusal forces might jeopardize the survival of the implant. It may, therefore, be necessary to increase the geometry and volume of the alveolar bone before instalment of dental implants. This can be obtained by grafting techniques, sinus elevation, and transposition of the inferior alveolar nerve or by the intrabony distraction of the alveolar process, which results in four to five surgical interventions. Therefore short implants have widened the options for implant installation. Short implants do not require the same pre-surgical treatment prior to installation as longer ones often do. Short implants may, therefore, have a reduced risk of interference with anatomic structures like the maxillary sinus or the inferior alveolar nerve. They may osseointegrate in atrophic alveolar ridges despite reduced bone volume. Stabilization of implants in the surrounding lamellar bone has been standardized using Resonance frequency analysis to reflect the bone/implant interface in documenting clinical implant stability. An adequate crestal bone level is considered to be an important clinical determinant for the success of implants. The marginal bone loss not only causes implant failure but also affects the esthetics due to changes in the gingival contour. This study was conducted to evaluate long term clinical performance of short implants.

COMPARATIVE EVALUATION OF THE COLOR STABILITY OF THREE DIFFERENT COMMERCIALY AVAILABLE DENTURE BASE RESINS-AN IN-VITRO STUDY

PREET SONI

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The most important dimension of aesthetics is color. Apart from the other properties of acrylic resin, developing its color to match with the color of oral mucosa and teeth makes it the material of choice for its universal application in denture prosthesis. In denture prosthesis though the denture teeth are aesthetically more important and are noticed significantly, the denture base is equally important for its aesthetics in many patients if not all. Discoloration of acrylic resin denture base when it comes in contact with various food materials and beverages in the oral cavity may cause aesthetic concern to a denture wearer. For many years, acrylic resin has been successfully used for denture fabrication. It has many advantages, like its ease of manipulation, low cost, adequate physical and mechanical properties, biocompatibility, and satisfactory appearance. However, these materials exhibit, over time, unsatisfactory characteristics such as loss of elasticity, abrasion, porosity, and color change. Color stability is one of the most important clinical properties for dental materials, and color change may be an indicator of aging or damaging of materials. Furthermore, the aesthetic appearance of a prosthesis is certainly an important feature required by patients and must satisfy their expectations. The color change of a polymeric material may be caused by intrinsic and extrinsic factors. Keeping the above in mind, the study was undertaken to evaluate the effect of food colorants on the color stability of three different commercially available Denture Base Resins.

CAN LOSS OF POSTERIOR TEETH CONTACT LEAD TO HEARING LOSS IN GERIATRIC POPULATION? – A CROSS-SECTIONAL STUDY

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Presbycusis (loss of hearing with age), leads to depression, social isolation and can be mistaken for memory loss or decreased cognition in elderly. Over time, with loss of hearing, both quality and longevity of life may be compromised. Presbycusis is a complex sensorineural pattern of injury rather than solely physiological age-related process. Medical risk factors, such as hypertension, diabetes mellitus, etc., apparently play a smaller role, with the exact underlying cause not fully understood. Socioeconomic status also influences the occurrence of presbycusis. Studies found across the disciplines of neuroscience, neurophysiology, otolaryngology, and dentistry have indicated association between dentate status and hearing. Little progress has been made to identify exogenous factors which contribute to presbycusis, or determine extent to which these factors lead to loss of hearing. This study is set to investigate possible role of oral condition (primarily dentate status) in decline of aural health accompanying aging.

EVALUATION OF RETENTION IN COMPLETE DENTURE USING DIFFERENT BORDER MOLDING MATERIALS

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AIM: The aim of this study is to evaluate the effect of different border moulding materials on the retention of upper complete dentures. **MATERIALS AND METHODS:** Ten patients were selected from the Department of Prosthodontics in Meenakshi Ammal Dental College, Chennai of age group 40-70 years for the study. For each patient after making preliminary impressions, three special trays were fabricated with visible light polymerizing tray material. Then Border molding was done using three different materials- Green stick compound, Putty rubber based material and Visible light polymerizing material followed by master impressions which were made using light body rubber-based material. The master casts were poured in dental stone. Three heat polymerizing denture bases were fabricated with wire loop on the palatal aspect of the denture base for each patient. Digital force gauge was used to evaluate and compare the retention of upper denture bases.

COLOURING UP YOUR EFFICIENCY

PRIYA PRABHAKARAN, NAGAUSHA

JSS DENTAL COLLEGE, MYSORE

Mastication is defined as a group of stomatognathic phenomena designed for mechanical food processing that includes grinding and breaking down of food into smaller molecules to be swallowed. The process of chewing, which range from 10 to 40 masticatory cycles allows food to be effectively reduced in size and moistened by saliva, thus forming a bolus. A reduction in the physiological secretion of gastric acid is characteristic of the aging human process which calls for the importance of efficient mastication to start food digestion processes. The loss of natural teeth not only results in aesthetic issues to individuals, but also seriously risk masticatory function. Mastication in subjects with complete dentures is a non-preferential process, wherein particles of all sizes are ground at random. This is contrary to the chewing process by natural dentitions in which coarse particles are ground more rapidly than the fine particles as chewing proceeds. Masticatory efficiency in edentulous patient is 6-10% that of the dentulous patient, because of the debilitating condition of the patient, it is important to know how residual ridge surface area is going to affect the masticatory efficiency. Colorimetric and sieve methods are accepted methods to check for the masticatory efficiency of both dentulous and edentulous patients. This paper correlates two methods (colorimetric and sieve methods) to check the masticatory efficiency in edentulous patients and compare same with the mandibular ridge surface area.

BIO FUNCTIONALITY– INDICATOR OF GENERAL HEALTH? - A RESEARCH STUDY

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The reduced masticatory ability may lead to changes in dietary selection with the risk of an impaired nutritional status, especially in elderly complete denture (CD), removable denture (RPD), fixed partial denture (FPD) wearers. As masticatory efficiency diminishes drastically in partially and completely edentulous patients, several researches have studied over the past two decades how the dietary intake and nutrition varies when the different types of oral rehabilitation are provided. To improve oral health outcomes, an adequate knowledge of the way the individuals use health services and the factors predictive of this behaviour is essential. In this modern era of information and technology, we may comprehend the ever-increasing awareness and heightened consumer rights regarding general health issues. The aim of the study is to find the co-relation between the biofunctionality with general health using a hierarchical dental functional classification system. As a result, the American Dietetic Association recently stated that oral health and nutrition have a synergistic bidirectional relationship. There is evidence that good oral health generally has very positive effects on the nutritional intake of older adults.

RADIOGRAPHIC ESTIMATION OF SAFE ZONE IN IMPLANT PLANNING BY MEASURING THE ANTERIOR LOOP LENGTH OF INFERIOR ALVEOLAR NERVE – A OBSERVATIONAL STUDY

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NEED FOR STUDY. The path of the inferior alveolar nerve often loops backwards while exiting the mental foramen and might spread medially to the foramen. Critical Evaluation of this area is necessary in implant planning as implant placement may cause damage to the anterior loop of the inferior alveolar nerve.

OBJECTIVE OF THE STUDY. The objective of the study is to evaluate the presence of anterior loop, estimate the length of the anterior loop and its age related variations with the anterior loop length.

MATERIAL AND METHODS. A total of 60 Digital Volumetric Tomographs (DVT) and Digital Imaging and Communications in Medicine (DICOM) files of patients will be acquired according to the 3 age groups: 15-30, 30 -45, 45-60. This data will be imported into a commercial software. Using the software, the Inferior alveolar canal will be traced along with its anterior loop. The vertical length of the nerve will be estimated from the canal to the opening of the mental foramen from cross sectional view and translated to panoramic view. The following data will be subjected to statistical analysis.

RESULT. This is an ongoing study of which the results will be updated shortly.

TKP COATED TITANIUM: A NOVEL APPROACH FOR EARLY OSSEOINTEGRATION

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An important goal in implantology is to achieve a faster, stronger and more predictable bone-to-implant integration for early loading. It can be extended to patients with poor bone density & compromised anatomical sites. So, the approach of early osseointegration has been studied by implementing various surface treatments and coating methods. Presently, standard SLA (Sandblasted and acid etched) surface modification for CP titanium is one of the method used in clinical practice today. The main goal of many experimental studies was to determine whether bone apposition could be enhanced by titanium surfaces coated with osteogenic materials as compared with the SLA treated surfaces of titanium. A novel biomaterial is reported and used in my study that is Tamarind Kernel Polysaccharide (TKP), coated over the CP Titanium Grade IV disks to promote mineralization and differentiation of human osteogenic Saos2 cells, in vitro. Various parameters such as Cell Viability, Cell Mineralization, Cell Maturation, Cell attachment were assessed and compared in both groups. It is interestingly observed that the TKP coated titanium surface promoted enhanced bone apposition & mineralisation earlier in comparison to SLA surface treated CP titanium. TKP coated implant surfaces have potential to be tested for greater osseointegration in in vivo studies.

ADHERENCE OF CANDIDA ALBICANS TO SURFACE-MODIFIED DENTURE RESIN SURFACES WITH POLYTETRAFLUOROETHYLENE(PTFE) POLYMER

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INTRODUCTION: Candidiasis is the most susceptible in immunocompromised patients. In denture wearers, candidiasis is aggravated by the adhesion of *C.albicans* to tissue fitting surface of maxillary denture base, which serves as an effective reservoir of microorganisms. The initial attachment of *Candida* on palatal mucosa and mucosal surface of the denture is an essential step in colonization and pathogenesis. Attempts have been made to inhibit candidal adhesion and subsequent colonization on the denture resin surface through the use of a wide range of antifungal agents; however the efficacy of this method of treatment is transient and does not offer a long-term effect. Polytetrafluoroethylene (PTFE) polymer possesses inherent non-stick properties mainly because of its low surface energy and the minimum friction coefficient. There has been studies that investigated whether a PTFE coating reduces biofilm formation on orthodontic brackets. **OBJECTIVES:** Effects of *Candida albicans* adhesion on PMMA samples coated with Polytetrafluoroethylene (PTFE). **METHODOLOGY:** Two groups were tested [Group 1: control, pure PMMA; Group 2: pure PMMA coated with Polytetrafluoroethylene (PTFE)]. 10 resin specimens for each group were polymerized, and 2 experimental subgroups for each surface type were devised, consisting of 2 and 4 days of incubation in *C.albicans* suspension. The surface area of adherent *C. albicans* stained with Gram's crystal violet was examined under a light microscope. This is done to calculate the percent surface area containing adherent *C. albicans*.

CORTICAL PLASTICITY WITH IMPLANT SUPPORTED PROSTHESIS

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Edentulous patients with implant-supported prostheses report improved tactile discriminative capabilities and motor function compared with when they wore complete dentures. Osseoperception is defined as the ability to identify kinesthetic sensation without the input from periodontal mechanoreceptors. This sensation is generated from the temporomandibular joint, masticatory muscle, mucosa, and periosteum, and provides sensory and motor information related to mandible movements and occlusion. The aim of this pilot study is to analyze the cortical plasticity occurring in patients with implant-supported prostheses. Two edentulous patients with implant-supported overdenture dentures and traditional complete dentures were recruited for a clenching task. They were scanned by functional magnetic resonance imaging (fMRI), to generate activation brain maps. Increased blood oxygen level dependent signals in the primary sensorimotor cortex were found in patients with implant-supported fixed dentures. Other activated areas included prefrontal cortex, Broca's area, premotor cortex, supplementary motor area, superior temporal gyrus, insular, basal ganglion, and hippocampus. We suggest that sensory and motor feedback to the central nervous system can be partially restored by implants supported dentures. Activation of the primary sensorimotor cortex in patients with implant-supported dentures might explain the improved tactile, stereognostic ability, and mastication functions, which are more similar to the natural dentition.

A SURVEY FOR ASSESSMENT OF USE OF PEEK CROWNS OVER CONVENTIONAL PFM CROWNS IN WESTERN MAHARASHTRA REGION.

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Several materials have been used for fixed dental prostheses. Commonly used materials for fixed dental prostheses (FDPs) are metal alloys, porcelains, ceramics and recently PEEK. In prosthetic dentistry, thus far, there has been a versatile use of PEEK material for crowns or bridges, clasps in the field of removable dental prostheses, implant supported bars, and provisional abutments. The physico-chemical properties of PEEK FDPs have several advantages over the conventional fixed prosthetic materials. But it is observed that patients are reluctant to opt for PEEK crowns because of several reasons like availability of materials in laboratory, cost factors, lack of knowledge about PEEK material etc. Also there is not much information available with respect to the assessment of use of PEEK crowns when compared to PFM crowns. So the present survey was conducted to assess the use of PEEK crowns over conventional PFM crowns in western Maharashtra. A survey sheet was prepared based on the questionnaires. The feedback was gathered individually which was then statistically analyzed to achieve the objectives of the study.

COMPARATIVE EVALUATION OF DIMENSIONAL STABILITY AND COMPRESSIVE RESISTANCE OF THREE INTEROCCLUSAL RECORDING MATERIALS – AN INVITRO STUDY

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Aim: To compare the dimensional stability and compressive resistance of three interocclusal recording materials. **Objective:** To evaluate and compare the dimensional stability and compressive resistance of three commercially available interocclusal recording materials in two-dimensional plane using standard techniques of measurement. **MATERIALS AND METHODOLOGY:** A stainless steel master cylindrical die was machine tooled. (ADA.19). Three hollow stainless-steel trays (10mm id) were machine tooled and made to fit snugly over the cylindrical master die. Difference in the heights of the trays and the die is 2mm, 4mm and 6mm. Three horizontal lines in the centre of the circle equidistant from each other were intersected by two vertical lines such that distance $AB=CD=EF=7.816\text{mm}$ is made. The samples were stored in tightly sealed containers and kept for 24 hours in an air-conditioned room at 25°C. Using universal testing machine (INSTRON), test samples will be loaded at a constant compressive force of 25N for 1 minute and subjected to a for dimensional changes. **Results:** Among the three materials evaluated, Poyether had better compressive resistance and least dimensional changes

POSITION OF TEETH AND DIMENSIONS OF BONY WALLS IN ANTERIOR MAXILLA FOR IMMEDIATE IMPLANT PLACEMENT - A CBCT CLASSIFICATION

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In the recent years, the need and high esthetic demands for anterior teeth replacement has led to the development of immediate implant placement (IIP). This is the challenging treatment option and presents a higher risk of complications. For the effective esthetic outcomes of IIP, facial bone thickness and height is one of the most important influencing factors. Very few studies have classified tooth positions and thickness of bony wall in anterior maxilla relative to IIP. Purpose of this study is to present a new working classification for position of maxillary anterior teeth viewed on CBCT scans. The tooth positions classified in this study will be helpful for proper patient selection and accurate implant placement strategy.

COMPARATIVE EVALUATION OF DEGREE OF CONVERSION, COLOUR STABILITY, AND WATER SORPTION OF A RESIN BASED SOFT LINER MODIFIED BY INCORPORATION OF THREE ANTIFUNGAL AGENTS- AN IN VITRO STUDY

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The use of soft liners in dentures is an important adjunct in the treatment of patients particularly those who are medically compromised. Polymeric systems enabling controlled drug-release have been suggested for a range of dental therapeutic applications. It has been suggested that impregnating with an antimicrobial such as chlorhexidine (CHX) may influence the polymerization and the degree of conversion (DC) of the polymer which may have an impact on its mechanical properties of soft liners. Colour stability and water sorption are two important criteria that provide information on the serviceability of these soft liner materials. The balance between component release and fluid absorption by soft liners results in material expansion, distortion, increase in hardness and roughness. The incomplete polymerization of the polymer as a result of the presence of drug particles alters the mechanical and physical properties of the soft liners. The Triazole antifungal agents such as Posaconazole and Voriconazole have excellent in vitro activities against all *Candida* specie isolated from patients wearing dentures. This paper describes the in-vitro study performed to evaluate and compare the degree of conversion, colour stability, and water sorption of a commercially available resin- based denture soft liner material modified by incorporation of three antifungal agents

COMPARATIVE ASSESSMENT OF THE ACCURACY OF GINGIVAL RETRACTION TECHNIQUES IN INTRAORAL DIGITAL IMPRESSIONS USING MEROCEL AND LASER

SAIMA

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Aim : Assessing the accuracy of intraoral digital impression in relation to the gingival retraction done using two different methods, during crown preparation procedure for FPD. **Background:** Success of fixed restorative dentistry is dependent on many factors including the accuracy in marginal positioning of the restoration onto the prepared finish line of the abutment. Retraction cords and pastes have been a valuable adjunct for many years to help dilate the sulcus, thus exposing the preparation margins for an optimal impression. The dentistry today is more technologically inclined. The term 'Digital dentistry' is becoming increasingly popular and is gaining its access into multiple clinical scenarios. However, the compatibility of digital technology for that particular situation is important. The compatibility of digital impression with use of gingival retraction for an accurate marginal positioning of the restoration has not been explored in all its aspects. **Methodology:** This clinical report focuses on the evaluation of compatibility of the intraoral digital impression in relation to the gingival retraction done using two different advanced gingival retraction methods namely Merocele strips and Laser diode. Digital measurement shall be taken before and after the retraction using the digital software between finish line and the crest of marginal gingival. The obtained values shall be subjected to statistical analysis and a plausible result obtained from it.

ABILITY OF HAMULAR NOTCH INCISIVE PAPILLA PLANE EVALUATOR IN QUEST FOR ORIENTING THE OCCLUSAL PLANE IN DENTULOUS SUBJECTS

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Prosthodontic rehabilitation of a patient with deficient dentition or disordered occlusal plane will execute great deal of challenge to the operators so as to establish correct occlusal plane to restore natural esthetics, speech and function. It is important to establish the plane of occlusion as close as possible to the position, which was previously occupied by the natural dentition to ensure normal function of stomatognathic system, Various anatomical land marks were used for the orientation of occlusal plane, but accuracy of most locations can be adversely affected by the irregularity and asymmetry of the face. Arbitrary use of the reference planes may affect the 3D orientation of the maxillary cast and inclination of occlusal plane. Hence, the functional and esthetic result of intended prosthetic rehabilitation may be compromised. To minimize these errors, we require landmarks which can better guide the clinician in establishing occlusal plane and identify the reference landmarks that can be recorded on the cast and scanned, one such plane reported in literature is hamular notch incisive papilla plane (HIP) and considered most reliable as this plane remains unaltered even after teeth loss and residual ridge resorption. In previous studies CAD designing, HIP analyser, Computer Tomography were used to evaluate the parallelism of occlusal and HIP plane but there are no studies measuring distance between them and significance of HIP Evaluator. So this study was intended to assess the reliability of HIP Evaluator for the orientation of occlusal plane in dentate individuals.

EVALUATION AND COMPARISON OF WATER SORPTION AND VISCOELASTICITY OF THREE COMMERCIALY AVAILABLE LONG-TERM SOFT LINING MATERIALS

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Relining is the process of adding a specific material to the tissue side of the denture to fill the space between the denture and the tissues. biologic supporting tissues used in complete dentures are vulnerable to time dependant changes and hence it is necessary to ensure proper fit, function and comfort of the prosthesis for the patient. The aim of the study was to evaluate and compare the water sorption and viscoelasticity of three commercially available soft lining materials before and after artificial ageing. the results were obtained by statistically analysing the data.

MICROBIOLOGICAL ANALYSIS OF SCREW ACCESS HOLE PLUGGING MATERIAL AND IMPLANT RECESS IN THREE DIFFERENT IMPLANT ABUTMENT CONNECTIONS: A COMPARATIVE IN-VITRO STUDY

SHARMILA DHANDAY

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Most implant systems used nowadays consist of 2-part system and there is a microgap at the implant abutment interface. The bacterial accumulation that occurs at this microgap can cause peri-implant mucositis and peri-implantitis. The implant abutment interface located at the level of the alveolar crest, may facilitate seepage of the fluid and macromolecules derived from the saliva and the crevicular fluid. The leakage occurs between the abutment–implant interface and/or through the abutment screw access channel, which may constitute risks to the clinical success of the implants. This study aims to comparatively evaluate the three different implant abutment connections- Internal hex, Cone screw and Conical hex with respect to their performance in in- vitro bacterial seal analysis along with evaluation of efficacy of cotton pellet, cotton pellet with 1% chlorhexidine and polytetraflouroethylene tape as plugging material in reducing the micro leakage from the screw access hole. Implants with their respective prosthetic implant abutments will be divided into 3 groups based on their implant abutment connection. Each group will be further divided into subgroup containing cotton pellet and polytetraflouroethylene tape as plugging materials. Each implant abutment complex will then be analysed for bacterial contamination.

“EFFECT OF HEAT TREATMENT AND FIRING CYCLES ON THE FLEXURAL STRENGTH OF CHROME-COBALT ALLOY AND TITANIUM-ALUMINIUM ALLOY BARS FABRICATED BY SELECTIVE LASER MELTING –AN IN VITRO STUDY”

SHILPA NANDINI S

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Technologies involved in metal manufacturing through casting have made tremendous progress. With the introduction of Milling technologies precision was redefined, also the speed of material manufacturing reduced the treatment time. However Milling was a subtractive technology resulted in material wastage. These were addressed in newer modes of manufacturing like Metal Printing. Rapid Prototyping is a common name used for technologies used for directly producing three dimensional shaped products from CAD file or digitally scanned data. Selective Laser Sintering and Selective Laser Melting are layer wise material addition techniques that allow generating a complex 3D parts by selectively consolidating successive layers of powder material on top of each other using thermal energy and computer controlled laser beam. The material is produced in a Digital environment hence it has the advantage of shortening the production process as well as reducing the wastage. However, metal layering showed higher residual porosity resulting in a weak structure. Compared to DMLS, SLM has shown reduction in residual porosity. In order to produce a fully dense material the printed prosthesis is subjected to further heat treatment. This is associated with increased mechanical properties. In addition, the prosthesis maybe subjected to ceramic firing. This may alter the final flexural strength which is crucial in the longevity of the prosthesis. As there are very few studies substantiating the above claim, this study was undertaken to evaluate the flexural strength which is of vital importance in long term use.

EVALUATION OF FRACTURE RESISTANCE OF THREE DIFFERENT CORE MATERIALS WITH THREE DIFFERENT CAVITY PREPARATION DESIGNS ON THREE DIFFERENT TEETH -AN INVITRO STUDY

SHOBANA.T

RAJAH MUTHIAH DENTAL COLLEGE AND HOSPITAL. KOTHANGUDI, TAMIL NADU

INTRODUCTION. A foundation or core restoration is often required after tooth fracture or extensive dental caries removal. Because the core becomes an integral part of the load bearing structure of the tooth. **PURPOSE.** To evaluate the fracture resistance of three different core materials with three different cavity preparation designs on three different endodontically treated teeth. **MATERIALS AND METHODS.** Freshly extracted maxillary premolar, maxillary molar and mandibular molar three in each are used as specimens. The specimens were endodontically treated and they were divided into three groups- X, Y, Z [Class I, Class II(MO), Class II(MOD)]. After preparation, the samples were duplicated and resin samples were made with 30. Total of 270 specimens were obtained. 30 specimen in each subgroup was divided into three subdivisions equally for three different materials. These specimens were acid etched and restored with Ever X posterior, Fluorocore, Filtek Z250 and tested in universal testing machine. **RESULTS.** The data obtained were tabulated along with bar graphs and statistically analyzed using one way ANOVA and Student 't' test. This study shows that there is significant difference in 3 different materials, Ever X shows higher mean fracture resistance (1948.11) than other 2 materials. Class II showed highest fracture resistance(1938.11) than other groups. **CONCLUSION.** Within the limitations of the study, it can be concluded that Ever X posterior showed highest fracture resistance when compared to Fluorocore and Filtek Z250. Class II cavity shows the higher fracture resistance followed by class I and MOD preparation.

COMPARATIVE EVALUATION OF HARDNESS AND DIMENSIONAL ACCURACY OF INTEROCCLUSAL RECORDS MADE BY NEW THERMOPLASTIC MATERIAL- POLYCAPROLACTONE AND POLYVINYL SILOXANE- AN IN VITRO STUDY

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ABSTRACT: The interocclusal recording materials should have excellent dimensional stability and ability to produce accurate records with minimal distortion. Various interocclusal recording materials are being introduced in routine clinical practice for precise recording and transferring of accurate existing occlusal records for articulation of patient's diagnostic or working casts in the fabrication of good satisfactory prosthesis. Currently, elastomeric materials such as polyether and polyvinyl siloxane has been widely used for the same purpose. It is proven that the polyvinylsiloxane is the most dimensionally stable, accurate and has the highest surface hardness. A novel thermoplastic material polycaprolactone is one such material which can be used to take interocclusal records. There is no single comparative study on the hardness and dimensional accuracy of interocclusal records made by polycaprolactone and polyvinyl siloxane. **Materials and method:** In this in-vitro study, standardized stainless steel die as per ADA specification number 19 was fabricated. A total of 15 impression of each material was made. Measurements were made using a measuring stereomicroscope. Distance between the cross lines reproduced in the sample was measured for dimensional accuracy. The hardness of each sample was checked using durometer. **Result:** Results of t- test can be statistically significant for hardness and dimensional stability $p < 0.05$. **Conclusion:** Polycaprolactone can be use as an interocclusal record material with respect to its hardness and dimensional stability properties.

COMPARISON BETWEEN DOMESTIC AND COMMERCIALY AVAILABLE DISINFECTANTS ON ACRYLIC DENTURE BASE RESINS BY EVALUATING SURFACE ROUGHNESS AND FLEXURAL STRENGTH: AN IN-VITRO STUDY

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ABSTRACT. Comparison between domestic and commercially available disinfectants on acrylic denture base resins by evaluating surface roughness and flexural strength: An in-vitro study. **AIM:** To evaluate the surface roughness and flexural strength on the denture base acrylic resins with both domestic and commercially available disinfectants. **OBJECTIVE:** To compare the differences of the domestic and the commercially available disinfectants on the acrylic denture base resin through the assessment of the surface roughness and flexural strength. The time of immersion of the denture base resin in the disinfectant allotted is 10minutes and in water is about 8hours daily. **MATERIAL AND METHOD:** domestically available disinfectants are lemon juice and vinegar, neem extract and the commercially available disinfectants includes the Corega tablets (sodium perborate), sodium hypochlorite, chlorohexidine. Heat cure acrylic bars will be fabricated by conventional technique. The samples will be immersed into the different types disinfectants respectively for 10 minutes, and then in water for 8 hours and further evaluation of the surface roughness and flexural strength following 7, 14, 21 days respectively. **CONCLUSION:** This is an ongoing study, and results will be published accordingly tabulated and presented after completion of the study.

EVALUATION OF METHYL METHACRYLATE MONOMER CYTOTOXICITY IN DENTAL PERSONNEL USING BUCCAL MICRONUCLEUS CYTOME ASSAY

SMRITHI MOHANDAS

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Methyl methacrylate (MMA), a monomer of acrylic resin, has a wide variety of dental, medical and industrial applications. The leaching out of monomer content of MMA is concerned with the toxicity of dentures made by heat cure and self cure acrylic resin. The oral effects of residual monomer (MMA) following polymerisation have been extensively investigated. In the dental laboratory where dental personnel make prostheses, they are occupationally exposed to MMA. Regular contact with and chronic inhalation of MMA has caused toxic side effects, ranging from allergic contact dermatitis, stomatitis, liver toxicity, hemorrhage, and necrosis of lung tissue. Buccal mucosal cells readily form micronuclei in response to toxic exposure, they are used as a source of tissue for monitoring human exposure to toxic substances encountered in occupational and environmental settings. Thus in this paper presentation I am evaluating the MMA cytotoxicity in dental personnel using buccal micronucleus cytome assay.

NEW DEVICE FOR PLACEMENT OF MAXILLARY CENTRAL INCISORS.

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Maxillary central incisors, located in the premaxilla is the anterior continuation of the hard palate. After the loss of maxillary anterior teeth, the resorption pattern of the residual ridge is along the direction and inclination of roots and the alveolar bone. The resorption along the mid palatine suture is minimal to negligible. Maxillary central incisor is the starting point for institution of prosthodontic rehabilitation, its proper placement is still an enigma. The various methods and procedures used to relocate the maxillary central incisors are linear and angular measurements compared with the cranial base or the maxilla. As the curvature of the hard palate along the mid palatine suture nearly remains constant even after the loss of the maxillary anterior teeth. An attempt has been made to use the cant of this curvature to relocate the position of maxillary central incisor using a new device.

THE QUEST FOR THE BEST: IN THE REALM OF JAW SIMULATION

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TEERTHANKAR MAHAVEER UNIVERSITY, MORADABAD

Articulator, being a prosthodontist's tool, helps in mastering the restoration of occlusion. Face-bows were developed in conjunction with articulators to orient the maxillary arch to the transverse hinge axis. The maxillary cast in the articulator acts as a baseline from which all occlusal relationships start. It is assumed that after face-bow transfer the occlusal plane of the mounted casts should be parallel to the Frankfort horizontal plane. This thus helps in simulating the exact patient orientation and in obtaining the best occlusion with harmonious contacts. Literature provides sparse information of the comparison of the articulators with the most meticulous transfer and methods to obtain a precise orientation of occlusal plane. Through this study, by involving thirty dentate individuals an attempt has been made to find out the most accurate device which can accurately orient the occlusal plane inclination of the maxillary models. Findings were compared with Cephalometry which is considered to be the anthropometric gold standard. This scientific paper presentation will try to unveil the conundrums of commonly used dental relators and will introduce an innovative method for facilitating occlusal adjustments.

COMPARATIVE EVALUATION OF WEAR RESISTANCE OF COMMERCIALY AVAILABLE ARTIFICIAL DENTURE TEETH-AN IN VITRO STUDY

SREEPRIYA S.S., SHARON ANN JOSE

P.M.S COLLEGE OF DENTAL SCIENCE AND RESEARCH, THIRUVANANTHAPURAM, KERALA

Purpose: The most important requirement of denture teeth is high wear resistance to preserve good occlusal stability and relationship. This study aimed to determine and compare the wear performance of different denture teeth. **Method:** Four commercially available denture teeth are randomly selected for the study according to price. The wear resistance is measured using pin-on-disc tribometer, in the presence of artificial saliva at a constant temperature (37°C). One loading cycle consist of a vertical 1mm impact and a subsequent lateral 1mm sliding movement under load. Cyclic loading of 64 N was applied for 10000 cycles. The maximum depth of the wear trace beneath the unworn surface is taken as the amount of wear. **Conclusion:** Denture teeth showed significantly different in vitro wear performance. Difference may be due to composition of materials and polymer structure.

COMPLETE DENTURES: PERSONALIZED!!

SURABHI DUGGAL, K. MOHANALAKSHMI

SRM KATTANKULATHUR DENTAL COLLEGE, CHENNAI

Characterization of complete dentures has become an emerging trend in prosthodontics in order to achieve superior esthetics in edentulous patients. Several methods have been advocated in an attempt to customize the artificial teeth and dentures bases according to the patients' needs. Tinting the denture bases to reproduce the colour and shade of the natural oral tissues is being commonly done in dental laboratories. This paper presentation features an improvised method of matching the shade of the gingiva using a spectrophotometer and incorporating the same shade as near normal as possible using the usual staining methods. This method can help to enhance the esthetics of the complete denture wearer successfully.

COMPARATIVE EVALUATION OF CRESTAL BONE LEVELS AROUND DENTAL IMPLANTS AS INFLUENCED BY CONVENTIONAL AND DIODE LASER SECOND STAGE SURGERY USING CBCT & DIGITAL RADIOGRAPHY – A PILOT STUDY

SUSHANT BAJAJ

I.T.S CENTRE FOR DENTAL STUDIES AND RESEARCH, GHAZIABAD

Lasers have been providing promising results as far as surgical exposures & their post-operative healing is concerned. Literature is suggestive of increased bone loss whenever a full or partial thickness flap is raised. Second stage surgery is often overlooked and is considered non-essential phase but actually could determine the health of the peri-implant tissue. Use of diode laser at 2nd stage surgery eliminates the requirement of raising a flap. This phase gives an excellent opportunity to preserve, reconstruct and even maneuver the soft tissue to optimize the soft tissue profile around the implant components. This study was conducted in 5 completely edentulous male patients in whom 2 implants were placed. The study was divided into two groups i.e. Group 1 & Group 2 with 5 implants in each group depending on the method employed for second stage exposure and it was an in-vivo split mouth study. For group 1, a conventional protocol & for group 2, a Diode Laser was used to perform the second stage implant exposure at 8 weeks after implant placement. Digital Radiographs & CBCT scans were done at regular intervals to evaluate crestal bone levels.

SMART MATERIAL FOR ORAL DRUG DELIVERY

SWEEKRITI MISHRA

RAMAIAH DENTAL COLLEGE, BANGALORE

Wound healing is a multifarious and vibrant process of damaged cellular structures, re-establishment of tissue integrity, and maintenance of the homeostasis. The hydrogel technology has been an integral part of human health care, the present study highlights the role of hydrogels in drug delivery. Oral trauma by characterized by painful ulcerations of the oral mucosa and are among the most common oral diseases which can affect quality of life especially for a prosthesis wearer. Topical application of specific drugs for the treatment of buccal mucosal diseases like oral ulcers is the common approach for many clinicians. The hydrogel technology has been an integral part of human health care the present study highlights the role of hydrogels in drug delivery. Our study focused on combining topical drug delivery through a hydrogel gel for the treatment of oral ulcers. Countless studies have demonstrated the healing powers of aloe Vera gel. It is also known to possess Anti-inflammatory, Antibacterial, Antifungal, Antiviral, Wound Healing, Pain Relief Treatment of minor burns, skin abrasions, and irritations. Two forms of hydrogels were prepared one with aloe Vera and one with benzocaine and both were compared to check which formulation could be better used for treatment of oral ulcers. Various parameters like folding strength, tensile strength, surface pH, drug content, drug release and ex-vivo mucoadhesive strength were analysed.

EFFECT OF IMPLANT DEPTH AND IMPLANT ANGULATION ON THE IMPLANT IMPRESSION

THANMAI TADURI

FACULTY OF DENTAL SCIENCES, DHARMSINH DESAI UNIVERSITY, VADODARA

Differing implant angulations and depths of implants in different clinical scenarios may lead to distortion in recording the exact implant position while making the impression. An accurate impression of the implant position is the key to the success or failure of the prosthesis to be given. There are a lot of variables that may come into play while making the impression that ultimately lead to distortion in the impression which later on affects the fit of the prosthesis. The aim of this study is to measure the amount of distortion occurring three-dimensionally, while making the impression

REDEFINING GOLD STANDARDS FOR DENTAL IMPLANT SUCCESS

VAISHNAVI INGINSHETTY, NEETA RANA

MARATHA MANDAL DENTAL COLLEGE, BELGAUM

Precision medicine as a disruptive force is based on standardization. The same holds true for the field of dentistry. Though there are basic standardization protocols that were established by the pioneers in implant dentistry, changing times and enhanced knowledge call out for a better understanding of the application of these standardizations, which eventually lead upto laying down a new set of protocols, hence redefining precision. Redefined precision will in turn enable clinicians deliver better standard of care. This paper deals with the precise measurement of 3 crucial parameters - Bone Density, Insertion Torque, and Implant Stability ; across various dental implant case scenarios. The implant-tissue interface is a dynamic region of interaction that completely changes character from its genesis to its maturity through the modeling and remodeling of the surrounding bone. Hence the 3 parameters being measured here help us cater to precision dentistry at various levels of oral rehabilitation using implants;. Bone Density - Pre Operatively & Post Operatively. Insertion Torque - During Surgical Phase. Implant Stability - both Primary and Secondary Stability. All this data has then been beautifully coalesced to give birth to a new scoring index, hence redefining precision. This index guides the clinician towards a better planning of a suitable prosthetic design and an appropriate occlusal scheme. Variations observed in the score at different time intervals can help the clinician alter the time allowed for healing, the timing of implant loading, and the occlusal design of the prosthesis.

COMPARATIVE EVALUATION OF SHEAR BOND STRENGTH BETWEEN GLASS FIBER REINFORCED POST AND RESIN BASED LUTING AGENT AFTER VARIOUS SURFACE TREATMENTS-AN INVITRO STUDY

VANDANA RAJPUT, SANDHYA.G. SAWARE

SHARAVATHI DENTAL COLLEGE, SHIMOGA

Comparative evaluation of shear bond strength between glass fiber reinforced post and resin based luting agent after various surface treatments - An invitro study. Preservation of the natural dentition is an important factor in effort to promote good oral health. Various methods of restoring pulpless teeth have been reported for more than 200 years. The artificial crowns used at that time were either made up of natural crowns made of ivory. Endodontically treated teeth with defective coronal aspects very often need to be restored with a post and core as foundation for the final restoration. The post systems available are custom made posts and prefabricated post. Fiber reinforced posts reduces chair time, treatment cost and also easy removal if endodontic retreatment is required. Failure of restoration using fiber reinforced posts occurs due to dislodgement of the post most frequently at the post adhesive junction. Several studies reveal that sandblasting along with surface treatment with different types of silane coupling agent increases the bond strength. Studies have also shown that despite of the increased surface available for bonding the resin luting agent, sandblasting alone did not significantly improve the bond strength between the post and core material, unless it was not followed by silanization. There were no studies conducted to compare both the type of silane coupling agents. Hence a study was conducted to compare and evaluate the shear bond strength between glass fiber reinforced post and resin based luting agent after various surface treatments.

ASSESSMENT OF THE KNOWLEDGE ABOUT ROUTINE LABORATORY PROCEDURES IN FABRICATION OF FIXED DENTAL PROSTHESES AMONGST DENTAL LABORATORIES.

VANDE AADITEE VISHNU, SHIVSAGAR TEWARY

SCHOOL OF DENTAL SCIENCES, KRISHNA INSTITUTE OF MEDICAL SCIENCES DEEMED UNIVERSITY, KARAD

The success of fixed dental prosthesis (FDPs) delivered to the patients depend upon the implementation of appropriate laboratory procedures and dental materials which are required during fabrication of that prosthesis. Inappropriate technique during it's fabrication may not always hamper the esthetic end results or fit, but may also hamper the longevity as well. Thus knowledge about the dental materials as well as the basic laboratory procedures among the dental laboratories should be regularly assessed to assure good quality work. This survey was conducted to assess the knowledge among laboratory technicians regarding the routinely used laboratory procedures and materials for fabrication of FDPs in dental laboratories in Western Maharashtra region with the help of a validated questionnaire. A survey sheet was prepared based on this questionnaire that was circulated personally. The feedback was then gathered individually from laboratory technicians in Western Maharashtra region and was then statistically analyzed to achieve the objectives of the study.

EFFICACY OF AN HERBAL PASTE AS DENTURE CLEANSER- A PILOT STUDY

VARSHA P. BHAT

YENEPOYA DENTAL COLLEGE, MANGALORE

Prostheses are often neglected in maintenance due to nature of design, age, lack of awareness, leading to microbial contamination. Microorganisms like *Candida albicans* grow on dentures in the mouth. Over the years commercially available denture cleansers have been the only mode of cleaning/disinfecting dentures. These usually contain many chemical substances which could be harmful to the patients. Nowadays people prefer natural products for day-to-day use, thus naturally available substances and traditionally used as cleansers can be checked for cleaning ability. A short study was conducted to check the efficacy of an herbal paste as denture cleanser.

ASSOCIATION BETWEEN AGE GROUPS & OCCLUSAL PLANE USING CUSTOMIZED BROADRICK'S OCCLUSAL PLANE ANALYZER AMONG 18-60 YEARS OLD POPULATION IN KHED TALUKA CITY: A CROSS SECTIONAL STUDY

VARSHARANI DHAKNE

YOGITA DENTAL COLLEGE & HOSPITAL, KHED

The determination of occlusal plane is one of the most important clinical procedures in Prosthodontic rehabilitation of the patients. Correct occlusal plane of orientation is one of the most important factors for the stability of the removable dentures and for the achievement of good esthetics, phonetic and masticatory function as well as for the patient's satisfaction. When the occlusal plane of orientation is lost by complete or partial edentulism, it should be relocated correctly by means of Prosthodontic restoration. In prosthodontics to locate the correct occlusal plane one of the instruments used is Broadrick's Occlusal Plane Analyzer (BOPA) which is easiest and hassle free. BOPA is used to determine and achieve an occlusal plane that fulfills both the functional, occlusal as well as the aesthetic requirement in cases that require full mouth rehabilitation. Total 40 subjects are selected 20 from urban area & 20 from rural area of 18 to 60 years of age group. Out of 40 subjects 20 are females and 20 are males. This study is done to show association between age groups & occlusal plane using customized Broadrick's occlusal plane analyzer among 18-60 years old population in khed taluka city.

SAFETY ASSESSMENT OF HUMAN DENTAL PULP DERIVED MESENCHYMAL STEM CELLS ADMINISTERED BY INTRA MUCOSAL AND INTRA BONY ROUTES IN RABBITS- AN ANIMAL STUDY

Y THAPASWINI, NIKITHA

SRI SAI COLLEGE OF DENTAL SURGERY, VIKARABAD

Stem cells have enormous potential to reduce sufferings of many diseases that currently have no effective therapy. Stem cells are master cells that have capability for self-renewal, potency and capability to differentiate to many cell types. The adult mesenchymal stem cells are being used in the head and neck region for orofacial regeneration (including enamel, dentin, pulp and alveolar bone) with their proliferative and regenerative properties, their use in the treatment of oral mucosal lesions is still in initial stages. As regenerative medicine is the next level in medical science, the use of mesenchymal stem cells has been a hope of possible solution to prevent many diseases. At present, it is challenging to treat completely and partially edentulous patients with oral mucosal lesions like oral sub mucous fibrosis, oral ulcers, oral mucositis, denture stomatitis, oral carcinomas and implant treatment modalities in prosthodontics. This study aims to evaluate the safety and histopathological changes of human dental pulp derived mesenchymal stem cells administered by intra mucosal and intra bony on rabbits.

REVIEW

A small wooden boat is beached on a sandy shore. The background shows a sunset over the ocean with a hazy sky. The word 'REVIEW' is overlaid in large, blue, serif font with a drop shadow.

STEREOLITHOGRAPHIC DIGITIZATION AND IT'S FUTURISTIC APPROACH IN IMPLANT DENTISTRY

AAMER MOHSIN, RANJEET GHADAGE

PANDIT DEENDAYAL UPADHYAY DENTAL COLLEGE, SOLAPU

The word rapid prototyping was first used in mechanical engineering field in the early 1980s to describe the act of producing a prototype, a unique product, the first product, or a reference model. In the past, prototypes were handmade by sculpting or casting and their fabrication demanded a long time. The use of stereolithographic models has progressively replaced traditional milled models and x-rays in the management of craniofacial anomalies and in implant rehabilitation. Diverse advantages can be mentioned, including better visualization of complex anatomical structures and more precise and sophisticated pre-surgical planning, through a simulated insight of the procedures of interest. Rapid prototyping has the highest fabrication accuracy and an increasing number of materials, which can be processed, are becoming available. Making of the stereolithographic objects by CAD file data provides solid evidence that computer-aided design and manufacturing technologies may become a new avenue for maxillofacial reconstructive surgeries, implant placement, fabrication of surgical stents, analysis, and production in the 21st century. There is endless scope of digitisation and technology in prosthodontics- let it be in the clinical and lab procedures like use of CAD-CAM technology, Stereolithography or rapid prototyping. The day is not far when remote sensing robotic devices would be performing the restorations under the command and surveillance of the master—the dentist without his immediate presence. Keywords—Rapid Prototyping (RP), Stereolithography, Computer aided design-Computer aided milling, Dental Implant, Maxillofacial surgery.

TEETH IN A DAY

ADIL KHURSHEED SHEIKH, DR SUMVER JAIN

K.D DENTAL COLLEGE, KOTA, UTTAR PRADESH

The loss of tooth in the esthetic area is often traumatic experience for the patient. Patients may suffer real or perceived effects following the loss of one or more teeth. Dental implant offers the most cost-effective and long-term solution for replacement of missing teeth, providing the patient with the sense of security and well-being. Recently, immediate implant placement after extraction of tooth with early loading has become more common. The advantages of this procedure include fewer surgical interventions, reduction in overall treatment time, reduced soft and hard tissue loss, and psychological satisfaction to the patient.. .

DIGITISATION IN PROSTHODONTICS

AFREEN KOUSER

SRI RAJIV GANDHI DENTAL COLLEGE OF SCIENCE AND HOSPITAL, BENGALURU

Digitisation has become a part and parcel of contemporary prosthodontics with the probability of most of the procedures being based on the digital techniques in near future. There is endless scope of digitisation and technology in prosthodontics, both in clinical and laboratory procedures, like use of CAD – CAM technology, stereolithography, rapid prototyping, optical impressions use of virtual articulators and digital facebows, digital radiographs and in the field of patient training, education and research using virtual patient programs and dental softwares.. These technical tools help us in precise data acquisition and reconstruction of the intraoral conditions in a virtual environment to diagnose, plan and facilitate treatment. The incorporation of digital dentistry into our restorative toolbox helps in accurate fabrication of crowns, bridges, dentures and precise placement of implants with minimal errors.. In the decade to come digitisation will reinvent prosthodontics and assume a role that is as important as it was at the inception of modern dentistry..

CRESTAL BONE LOSS- A LITERATURE REVIEW

AISHWARYA CHINCHWADE, DR SALEHA SHAIKH

M.A RANGOONWALA DENTAL COLLEGE, PUNE, MAHARASHTRA

Crestal bone level is an important parameter in determining the success of implants. Crestal bone loss (CBL) can lead to increase in bacterial accumulation resulting in secondary peri-implantitis, occlusal overload, marginal bone resorption affecting the marginal soft tissues and finally leading to implant failure.. . A loss of 2mm was considered normal in the first year of placement followed by 0.2mm annually. Factors like implant design, diameter, abutment height, implant–abutment connection smoking etc are responsible for pathological CBL. . . Several attempts have been made to reduce the CBL. Many studies have concluded that design modifications such as platform switching, scalloped implants, square threaded implants, use of wide diameter implants have significantly reduced the CBL. Also, immediate placement and progressive loading have shown better results in crestal bone preservation.. Recent studies reported that the gingival biotype also plays an eminent role in implant success. A thin mucosa at the time of implant installation resulted in establishment of a “biologic width”, which is responsible for the protection of peri-implant hard tissues. Choice of design and time of placement depends upon clinical situation.. . The aim of this systematic review is to compare each of these techniques to know which one is more effective in the preservation of the crestal bone around implants.

PEEP INTO PEEK - A SYSTEMATIC REVIEW

AISHWARYA K

RAGAS DENTAL COLLEGE AND HOSPITAL, TAMIL NADU

AIMS AND OBJECTIVE: The search for an absolute and all purpose dental restorative material is always an enigma. This meta analytical study aims at one such proposed material by name " POLY ETHER ETHER KETONE (PEEK)", its characteristics, its implications and application in prosthodontics.. **MATERIALS AND METHODOLOGY:** The article search for this study was conducted using medline, PUBMED, Research gate, google scholar using the key words " PEEK", "Prosthodontics", " Dental restorative material". The time period was arbitrarily chosen from January 2010 till September 2018. The variables analysed were divided according to the mechanical, chemical, physical and biological properties in vitro, in vivo or both. . **RESULTS:** Data was analysed using standard statistical guidelines. The physical, chemical, and biological properties of the dental restorative materials were critically analysed and those with P value of less than 0.05 were taken to be statistically significant. Sub group analysis was done for the precision and reproducibility of PEEK using commonly available manufacturing techniques and the results were tabulated regarding the safety, efficacy, reproducibility, cost effectiveness, ease of manufacturing of the various procedures.. **CONCLUSION:** . Long term prospective randomized control trail with long term follow up is definitely warranted for arriving at a conclusive and definitive results regarding the use of PEEK. As of now, PEEK seems to be a reasonable alternative in the long armament of multiple dental restorative material and when judiciously used, seems to pave a long way in the future years to come..

COMPARATIVE EVALUATION OF IMPLANT STABILITY IN OSSEODENSIFICATION AND NORMAL OSTEOTOMY PROCEDURE: A SYSTEMATIC REVIEW

AJAY SOMAN, SOORAJ BABU

ANNOOR DENTAL COLLEGE, MUVATTUPUZHA, KERALA

Dental implants have been a popular alternative in the oral rehabilitation after the introduction of osseointegration (Branemark 1985). Successful osseointegration is prerequisite for functional dental implants. Primary stability has been acknowledged as essential criteria for achievement of osseointegration. It is essential to have sufficient bone bulk and density at the implant site in order to achieve good bone-to-implant contact and primary stability. A new osteotomy preparation technique osseodensification was recently introduced that uses a bone preservation method that creates a layer of compacted bone along the surface of the osteotomy. This favors an increase in initial implant stability.. This paper is a systematic review describing the osseodensification technique; associated changes in bone density and implant stability and its comparison to normal osteotomy procedure.

CLARIFY YOUR VISION WITH PRECISION-3D PRINTING

ALKA CHOUDHARY, SUMIT VERMA

HIMACHAL DENTAL COLLEGE, HIMACHAL PRADESH

3D printing has been hailed as a disruptive technology which will change manufacturing. Used in aerospace, defence, art and design, 3D printing is becoming a subject of great interest in surgery. The technology has a particular resonance with dentistry, and with advances in 3D imaging and modelling technologies such as cone beam computed tomography and intraoral scanning, and with the relatively long history of the use of CAD CAM technologies in dentistry, it will become of increasing importance. Uses of 3D printing include the production of drill guides for dental implants, the production of physical models for Prosthodontics, Orthodontics and Surgery, the manufacture of dental, Craniomaxillofacial and orthopaedic implants, and the fabrication of copings and frameworks for implant and dental restorations. In prosthetic treatments, computerized scanning systems and 3D printing systems have come largely to replace traditional techniques for producing prosthetic works. 3D imaging and modelling, and CAD technologies are hugely impacting on all aspects of dentistry. 3D printing makes it possible to accurately make one-off, complex geometrical forms from this digital data, in a variety of materials, locally or in industrial centres. This paper reviews the types of 3D printing technologies available and their various applications in dentistry and in Prosthodontics.

PRECISION ATTACHMENTS- THE MULTI TASKERS

AMRITA SONI, MOHAMMED JAVED

SRI AUROBINDO COLLEGE OF DENTISTRY, INDORE

The term precision denotes “the quality or state of being precise”.. Precision attachments are small interlocking devices to connect prosthesis and abutments that offer a variety of solutions to the challenge of balance between functional stability and cosmetic appeal.. Precision attachments have wide applications, used in fixed removable bridge, removable partial dentures, overdentures, implant retained overdentures, and maxillofacial prosthesis.. Nevertheless in past they have been largely ignored by most dental professionals for understandable reasons, notably due to cost and inadequate grasp of their application (Gareth Jenkins, 1999).. Misconceptions about the use of intracoronally retained prosthesis have discouraged many practitioners to use them in their dental practices.. However the prosthodontist who employs this form of treatment quickly learns of its benefits in providing patients with a prosthesis with improved esthetics, better retention and stability, better fracture resistance as compared to clasp and reduced bulk.. Elevated psychological acceptance, elimination of lateral forces on the abutment during insertion and removal of the prosthesis and more axial force during functions are some of the advantages of precision attachments. They also act as mechanical stress breaking devices.. This paper is intended to compare the results gathered by multiple authors on different precision attachments available to help clinicians in their daily practice to make the right decision while planning a prosthesis..

MORSE TAPER DENTAL IMPLANTS AND PLATFORM SWITCHING: THE NEW PARADIGM IN ORAL IMPLANTOLOGY

ANCHAL SAXENA

MAITRI COLLEGE OF DENTISTRY & RESEARCH CENTRE, CHHATTISGARH

Dental implants have achieved long-term success due to the osseointegration of highly biocompatible titanium integrating to the surrounding bone. Following the establishment of osseointegration, the implant system depends on the mechanical and chemical stability of the contacting metal joints, which must sustain proper torque originated from the friction between contacting surfaces. In regards to implant dentistry, criteria for a sustainable, healthy soft tissue outline are a prosthesis that provides mechanical strength and remains esthetically pleasing. This aesthetic outcome with dental implants is similar to conventional dental prosthetic restorations. Due to limitations in bone augmentation procedures and implant screw-retained prostheses associated with dental implants, often the ideal esthetic position is not a viable option. Currently, common examples of internal implant-abutment connection designs are the internal hexagonal and the Morse taper connection. A unique design feature of the Morse taper implant-abutment connection is an internal joint design between two conical structures. The advantage of Morse taper connections involving platform switching is that it would increase the maintenance of peri-implant bone and soft tissues. Thus, likely maintaining the soft tissue profile, reducing the incidence of bone-loss, and ultimately the onset and rate of marginal peri-implantitis associated with the implant-abutment platform. Thus, the main purpose of this paper is to review current evidence on the benefits of Morse taper dental implant joints associated with platform switching.

DIRECT INKJET PRINTING IN PROSTHODONTICS: A REVIEW

ANJU SUSAN RAJU, DR DEEPTHY S S

MAR BASELIOS DENTAL COLLEGE, KERALA

Digital dentistry is rapidly transforming dental field, 3D printing technologies are paving the way. CAD/CAM milling systems provide a rapid and individual method for the manufacturing of dental restorations. However the disadvantages of these systems include limited accuracy, introduction of microscopic cracks and waste of material due to the principle of subtractive process. Additive manufacturing techniques exhibit the potential to overcome these limitations. With these techniques, a 3D component can be built up layer by layer. . Direct inkjet printing is an additive manufacturing technique which provides the possibility of generating dense bodies at a high resolution and complex shape. It creates the model one layer at a time by spreading a layer of powder and ink jet printing binder in the cross section of the part. It is the most widely used 3 -D Printing technology these days.. This review highlights the role of Direct Inkjet Printing in the field of Prosthodontics.

ARE BASAL IMPLANTS A MAGICAL FORMULA FOR REHABILITATION OF SEVERELY RESORBED RIDGES?

ANKITA TRIKHA

CHANDRA DENTAL COLLEGE AND HOSPITAL, SAFEDABAD BARABANKI

“Good design is a sustainable design”. In today's scenario, dental implants are considered as an electable treatment plan for restoring missing teeth. The conventional crestal implants, no doubt classically offers therapeutic solutions for rehabilitation of missing teeth. But implant placement in severely atrophic jaws is especially challenging because of poor quality of future implant bed. In such cases, additional bone augmentation procedures are demanded but they usually increase the overall treatment risk and cost of the treatment notably.. Basal implants are an alternative treatment as they anchor in a “sustainable implant site” i.e. in a stable and resorption free bone areas (cortical bone) and can be immediately loaded and avoid chances of peri-implantitis. Basal implant concept can be thought as a masterful balance of meeting the present need of primary stability without jeopardising the ability of the bone-implant-restoration-complex to co-exist in a stable manner under long-term loading and functional patterns. `In this article an overview of basal implants and the differences that exist between basal implants and crestal implants are discussed.. .

IS T-SCAN RELIABLE AND ACCURATE? - A BRIEF REVIEW

ANMOL RATAN CHANDHOK, DR EASHA SINGH DOGRA

AB SHETTY MEMORIAL INSTITUTE OF DENTAL SCIENCES, MANGALORE

Occlusion is an important consideration in the restorative care of a patient. An understanding of the movements of the mandible and how restorative dentistry may influence them should be considered in any treatment plan. To establish a diagnosis of occlusal pathology, it is essential to have an objective knowledge of the patient's mandibular dynamics to develop a method that enables the dentist to analyze. With the evolution of time, methods like measuring occlusal features with a millimeter rulers, testing occlusal contacts with articulating ribbon/paper or occlusal wax, registering occlusion with silicones, mapping occlusion with occlusal sketch, photographs and the use of occlusal sonography have finally reached to a stage of computer aided determination of occlusal contact points and the use of T-scan pressure sensitive films.. T-Scan allows prosthodontists to map patients' individual occlusal contacts using pressure sensor technology, a must-have for those who want to measure occlusion throughout the treatment process to improve patient outcomes and reduce repeat visits. When used in conjunction with articulating paper, T-Scan's precise, actionable data gives you the ability to diagnose and treat occlusion accurately.. Even though T-Scan system precisely and dynamically records the time, force and area of occlusal contacts, views on the reliability of the T-Scan system as a method for occlusal contact registration has always been questioned, especially regarding its repeatability and accuracy. This paper broadly reviews the mechanism, methodology, accuracy, reliability, characteristics and clinical application in the field of prosthodontics.. . .

OSSEODENSIFICATION - A NEW FRONTIER IN ACHIEVING OPTIMAL PRIMARY IMPLANT STABILITY

ANURAJ VIJAYAN, TUSHAR

I.T.S. DENTAL COLLEGE, GREATER NOIDA

Increasing awareness has led to a paradigm shift from removable to fixed restorations, making implant restorations a treatment of choice for missing teeth. For any type of successful implant treatment, osseointegration is considered the mainstay. It was first defined by Brånemark, as a direct contact of living bone with the surface of an implant at the light microscopic level of magnification. Albrektsson et al exhibited six major parameters for osseointegration, which all point towards achieving optimal primary stability. In this fast paced world, we as clinicians should provide fastest and best treatment possible to our patients. This led to immediate loading implant technique. It has been well established that primary stability is of paramount importance, especially in successful immediate loading, implant treatment as it is connected very intimately to all the parameters required for osseointegration. Many surgical techniques have been developed for this objective. Osseodensification is one of the recent technique which was developed for this purpose. Osseodensification improves bone density and thus increasing the primary stability. So the aim of the presentation would be to highlight the advantages provided by this novel method and its contribution towards primary stability of implants, preservation of native bone of patient and ultimately the success of the whole procedure.

THE 'SAVIOUR' IN FAILURE OF DENTAL IMPLANTS- SILVER NANOPARTICLES: A REVIEW

APOORWA AWASTHI, ASHWINI

PEOPLES COLLEGE OF DENTAL SCIENCE AND RESEARCH CENTRE BHOPAL

Silver has been used in the medical field for centuries because of its antimicrobial properties and ever since the invent of antibiotics, the use of silver has been reduced. More recently, silver nanoparticles have been synthesised and have been incorporated into several bio-materials, since their small size provides great antimicrobial effect, at low filler level. Hence, these nanoparticles have been applied in dentistry in order to prevent or reduce biofilm formation over dental implant surfaces. . This paper presentation provide a review regarding AgNP incorporation, such as antimicrobial potential, cytotoxicity and long term effectiveness. .

CONVENTIONAL VS CBCT IMAGING TECHNIQUES IN IMPLANT DENTISTRY: AN OVERVIEW

ARINDAM DALAL

TRIVENI INSTITUTE OF DENTAL SCIENCES, HOSPITAL AND RESEARCH CENTRE, CHHATTISGARH

IMPLANT DENTISTRY PRACTICE IS RAPIDLY GROWING EVERYDAY, AS THE PATIENT IS WELL AWARE OF THE SAME AND WANTS PERMANENT TREATMENT. BUT FOR THE SUCCESSFUL OUTCOME OF THE TREATMENT AND ITS PRECISION, PROPER DIAGNOSIS AND TREATMENT PLAN IS REQUIRED. X-RAYS PLAY A MAJOR ROLE FOR THE SUCCESS OF THE TREATMENT. CONVENTIONAL IMAGING TECHNIQUES SUCH AS OPG, IOPAR ,RVG ETC GIVES ENOUGH RELEVANT READINGS, BUT THE DENTIST HAVE TO FORMULATE THE EXACT CALCULATIONS FOR THE DESIRED IMPLANT. ANY MISCALCULATION CAN LEAD TO FAILURE OF THE TREATMENT. RECENT IMAGING TECHNIQUES SUCH AS CONE BEAM COMPUTED TOMOGRAPHY MAKES IT EASIER AS THEY INCREASE PRECISION AND PROVIDE 3D IMAGING, SO THAT WE CAN FORMULATE THE ENTIRE TREATMENT PLAN ON THE COMPUTER. IT REDUCES TREATMENT FAILURE. ON THIS PAPER I WILL BE PRESENTING AN OVERVIEW ABOUT CONVENTIONAL VS CBCT IMAGING TECHNIQUES IN IMPLANT DENTISTRY.

EFFECTIVENESS OF SHADE AND THICKNESS OF RESIN CEMENT ON THE FINAL COLOR OF THE PORCELAIN LAMINATE VENEER: A SCOPING REVIEW

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BACKGROUND: Porcelain laminate veneer has evolved as a dependable treatment option due to their superior optical properties similar to natural tooth and exceptional aesthetic outcome. Among the factors which influence the final shade of laminate veneers, shade and thickness of resin cement used for luting contributes to the ultimate result. This systematic review helps to analyse whether the shade and thickness of resin cement will affect the final color of the veneer restoration. **MATERIALS AND METHODOLOGY:** Electronic databases were searched based on set inclusion criteria. The initial search of literature included 22 studies, of which 5 articles were excluded, a total of 17 articles for full text reading was included, 3 articles which satisfied the inclusion criteria were accepted as eligible.. **RESULTS:** The search resulted in three studies reporting the effect of resin cement shade on porcelain. The mean color difference was assessed in terms of clinical acceptability and perceptibility threshold. Various resin cement systems with similar shade showed different color parameters and changes in final translucency. None of the studies compared the thickness parameter of resin cement on the final color of restoration.. **CONCLUSION:** The aesthetic outcome of veneer restorations are reflected by the shade of resin luting cements considering the mean color difference within various cement systems. There is a definite need for further research to evaluate the effect of cement thickness on final color of veneers and a standardized resin cement shade classification.. **Key words:** Resin cements, Cement thickness, Dental cement shade, porcelain laminate veneer, translucency color

ROLE OF INTRA ORAL SCANNERS AND QUANTITATIVE OCCLUSAL INDICATORS IN PROSTHODONTICS

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There is a constant increase in the possibilities and potential of DIGITAL IMPRESSION taking with the aid of INTRAORAL OPTICAL IMPRESSION systems in the recent years, with respect to the range of OPTICAL INTRAORAL SCANNERS in the market. These INTRAORAL SCANNERS have already surpassed and proved clinically to be clearly superior to conventional impression methods. The INTRAORAL SCANNER utilises CONFOCAL technology with a significant reduction in the volume of hardware which allows increase in the software-based technologies. In addition, INTRAORAL SCANNER is also used in quantitative occlusal indicators such as T-SCAN (Tek Scan) OCCLUSALANALYSIS system, VIRTUAL DENTAL PATIENT. The T – Scan consists of PIEZOELECTRIC FOIL SENSOR, sensor handle, hardware and software to record, analyse and view the accurate data. It identifies the time magnitude and distribution of bilateral simultaneous occlusal contacts. Virtual Dental Patient is a Three-Dimensional dental model assembled from scanned data from the cast of a patient dentition. This technology helps in assessment of chewing efficiency and identify the occlusal interferences. .

PROSTHODONTIC REHABILITATION OF HEMIMANDIBULECTOMY PATIENTS

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Rehabilitation is difficult in an edentulous patient. Management of patients with acquired defect of mandible is a challenge related to both control of primary disease and rehabilitation which often requires resection of large portions of mandible. If mandibular continuity is not restored during surgical closure of wound, remaining mandibular segment will retrude and deviate towards the surgical side at the vertical dimension of rest. Disabilities resulting from such resections include impaired speech, difficulty in swallowing and severe cosmetic disfigurement. Greater the loss of tissue, greater will be the deviation of mandible, thus comprising the prognosis of the treatment. The success in rehabilitating these cases will depend on nature and extent of surgical defect, treatment plan, type of prosthesis and patients cooperation. This review article describes the prosthodontic rehabilitation of hemimandibulectomy cases with different treatment options like using a provisional guide flange prosthesis, a palatal ramp training appliance followed by a cast partial denture with a mandibular guiding flange, construction of a modified occlusal table in to conventional complete denture, implant supported fixed prosthesis and bar retained implant supported overdenture. Thus rehabilitation of hemimandibulectomy cases can bring functional and psychological benefits on the wellbeing of patients.

ARTICULATING PAPER VS T SCAN

DEBASHISH SAHOO

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The size of the largest articulating paper mark cannot be taken the only criteria while performing the occlusal adjustments . a computerized occlusal analysis is very much essential when performing . the occlusal adjustments. It provides accurate information when performing selective occlusal grinding . of the cusps because the scanning not only analyses the tooth with the premature contacts but also. specifically indicates the slopes of the cusps that have to be subjected for grinding. Computerized . occlusal analysis is not very technique sensitive and the procedure can be performed easily to obtain . accurate results as compared to the articulating paper because thickness of the sensor is standardized . whereas the articulating paper thickness varies from one company to other . articulating paper marking . can be contaminated by the saliva and hence can cause misinterpretation of reading where as in T scan . the sensors are synthetic and resistant to salivary wetting of the sensors thus maintaining the accuracy . of recordings . T scan analyses the first contact on the computer thus providing accurate information of . the type of occlusion and jaw movements for the patient. the ultimate advantage of computerized . occlusal analysis is that it can detected the amount of force as well as location of the highest intensity . contacts of a single tooth which is very specific ..

GUIDED BONE REGENERATION IN IMPLANT DENTISTRY

DEEPIKA C S

GOVT. DENTAL COLLEGE PATIALA PUNJAB

Post extraction crestal bone resorption is common and unavoidable which can lead to significant dimensional changes. For successful implant placement and for the regeneration of bone, Guided Bone Regeneration (GBR) has often been advocated.. GBR is a surgical procedure that uses barrier membranes with or without particulate bone grafts and or bone substitutes.. GBR is commonly used in combination with the installment of titanium implants. The application of a membrane to exclude non osteogenic tissues from interfering with bone regeneration is the key principle of GBR.. GBR is a successful, well documented and widely used procedure for treatment of alveolar bone defects in conjunction with implant treatment. There is 95% implant survival after a horizontal or vertical GBR procedure.. Research on GBR and the search for an ideal membrane is still going on. Every membrane type presents both advantages and disadvantages. Titanium mesh membranes offer superb mechanical properties for GBR treatment. . GBR can be a successful treatment modality for fenestration and dehiscence type defects around dental implants..

IMPLANT SCAN BODY

DHEEPIKA.K, BIJU.K. A

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Today, digital technology controls almost every aspect of our life and dentistry is no exception to it. Technological advances are making it easier than ever to practice dentistry in almost every dental procedure.. The foundation of good fitting, functionally integrated prosthesis is established at the impression stage. This is particularly important for implant restoration, where greater precision is required. An inaccurate impression may result in the misfit of the prosthesis leading to mechanical complications such as screw loosening and fracture of the prosthesis or implant components and later it may lead to bio-mechanical complications also.. Conventional techniques using trays and impression materials encounter problems with expansion, shrinkage or distortion of impression materials. With the help of scannable abutments called “Scan Body”, the precision of impression is obtained by digital workflow thereby enhancing the fit of the prosthesis.. This paper presentation highlights the role of scan bodies in implant dentistry and their advantages over conventional impression, misfit or displacement of the transfer copings, mode of transfer to the lab technician. Implant scan body has its own disadvantages such as being relatively expensive; need specialized equipment's, well equipped lab which can accept these data for fabrication of the prosthesis..

SOCKET PRESERVATION: AN OVERVIEW

DHEERAJ MANCHANDA, SANDEEP VERMA

SUDHA RUSTAGI COLLEGE OF DENTAL SCIENCES AND RESEARCH, FARIDABAD, HARYANA

Healing of the extraction socket after tooth removal involves retention of the blood clot followed by a sequence of events that lead to changes in the alveolar process in a three dimensional fashion. This normal healing event results in a minimal loss of vertical height (around 1 mm), but a substantial loss of bucco-lingual width. During the first three months following extraction, that loss has been shown to be significant and may result in both a hard tissue and soft tissue deformity, affecting the ability to restore the site with acceptable esthetics. Procedures that reduce the resorptive process have been shown to be predictable and potentially capable of eliminating secondary surgery for site preparation when implant therapy is planned. The key element is prior planning to prevent the collapse of the bucco-lingual width.. Several techniques have been employed as ridge preservation procedures involving the use of bone grafts, barrier membranes and biologics to provide a better restorative outcome. This paper will explore the evidence behind each technique and their efficacy in accomplishing site preparation.. .

ACHIEVING ACCURACY IN CAST ARTICULATION

DIVYA MEHTA

BHABHA COLLEGE OF DENTAL SCIENCES, MADHYA PRADESH

SUCCESSFUL DIAGNOSIS AND SATISFACTORY TREATMENT OF DENTAL PATIENTS REQUIRE PRECISE DUPLICATION OF MAXILLO-MANDIBULAR RELATIONSHIPS ON AN ARTICULATOR. THE ARTICULATION PROCESS USUALLY INVOLVES RIGIDLY ATTACHING THE MAXILLARY AND MANDIBULAR CASTS TOGETHER. MANY RESEARCHERS BELIEVE THAT ACCURATE CAST ARTICULATION IS A NECESSITY AND THE FINAL DENTAL PROSTHESIS WOULD NOT BE ACCEPTABLE IF, INACCURACY IS INTRODUCED IN ANY STAGE OF DENTAL CAST ARTICULATION PROCEDURE. LITERATURE SHOWS THAT ERRORS ARE EXPECTED TO OCCUR IN ANY STAGE OF CAST ARTICULATION PROCEDURE. THE ERRORS ASSOCIATED WITH THE MATERIALS USED, LIMITATIONS OF THE ARTICULATORS, RESTRICTIONS OF SOFT TISSUES AND ROLE OF MASTICATORY MUSCLES ARE SOME FACTORS THAT AFFECT EITHER DIRECTLY OR INDIRECTLY THE ACCURACY AND OF CAST ARTICULATION PROCEDURE. HOWEVER, MANY OF THESE CAST ARTICULATION ERRORS CAN BE AVIODED THROUGH UNDERSTANDING THE MAXILLO-MANDIBULAR RELATIONSHIP, PROPER SELECTION OF MATERIALS AND PROPER MANIPULATION OF THE DEVICES.

VIRTUAL REALITY -TWINITY IN PROSTHODONTICS

G SANDHYA

JKK NATTRAJA DENTAL COLLEGE, TAMIL NADU

Computer assisted navigation has proved to be a compliment in various surgical disciplines. The implant dentistry have expanded this virtual reality technology for the perfection and 3-dimensional planning of implant placement and also describes the various techniques involved, its merits and demerits applications and future perspectives in prosthodontic rehabilitation.

DOES NBW3 DESERVE TO BE ADJUNCT IN TREATMENT OF PERI IMPLANTITIS? A REVIEW

G. B. AJAY BALAJI, KATHERINE NAOREM

SRI SIDHARTHA DENTAL COLLEGE, TUMAKURU, KARNATAKA

Peri implantitis is a chronic inflammatory disease caused by microorganism residing in sub gingival biofilm. For treatment of peri implantitis several therapies have been reported . non surgical treatment usually includes debridement with curettes or air abrasion and these can be with antibiotic therapy. Surgical treatment involve access to lesion followed by debridement .in some cases, regenerative therapy such as bone graft or barrier membrane still being few long term prospective randomized studies so ideal peri implantitis therapies have not been elucidated. In recent day advances , Ozone (O₃) is attracting attention as a possible alternative antiseptic in the dental field. The high stability of ozone nano bubble water allows for bottling and use as a disinfectant solution. there is no cytotoxicity against oral epithelium and mucosal cells such as fibroblast, cementoblast and epithelial cell that suggest aquous ozone would be suitable for treating oral infectious diseases. NBW3 retains ozone gas in form of nano bubble and can exert anti microbial activity for more than 6 months if it is protected against the UV rays. NBW3 has been used for peri implant patients, and the results suggested that the irrigation with NBW3 might be a promising adjunctive therapy for peri implantitis.

REDEFINING PRECISION: THE DIGITAL WAY

HARSHITA NARANG

MM COLLEGE OF DENTAL SCIENCES AND RESEARCH, HARYANA

REDEFINING PRECISION- THE DIGITAL WAY!. . Mid 1800's marked the beginning of concept of impression making. To accomplish the best prosthetic results, it was important to understand the properties of materials, their accuracies, and ability to reproduce fine details along with replication properties of the gypsum products. First impression material to hit the dental practice was Beeswax, being the important benchmark in evolution of impression materials. This evolution was further followed by Gutta-Percha, thermoelastic resins and Plaster Of Paris. Progressing to the next era, use of hydrocolloids were most preferred impression materials. Polysulfides, condensation silicones, addition silicones {polyvinyl silicones[PVS]}, polyether were introduced. These materials were a success in prosthodontics as they offered advantages of accuracy, dimensional stability and best elastic recovery, hence providing high quality impressions and prostheses. During 20th century, the evolution of materials slowed down, as the elastomeric materials satisfied almost all the aspects required for fabrication of prostheses. But now the latest development in dentistry unfolds the new era of digital/optical impression.. In this paper I will take you the journey of impression materials since 1800's with emphasis on the latest techniques so that we can truly redefine precision.

WHICH IS BETTER? LUMINEERS OR VENEERS?

HUMA TALAT KHANAM CHOWDHARY, NEETA SALUNKHE

DASWANI DENTAL COLLEGE & RESEARCH CENTRE, KOTA, RAJASTHAN

Aesthetic dentistry is fast emerging as an increasingly popular branch of dental sciences. Every patient coming for dental treatment wants a smile as beautiful and luminous as the stars. In this upcoming trend, the most common and consistently successful treatment approach has been that of ceramic veneers. They serve as a brilliantly aesthetic, minimally invasive and durable aesthetic pathway to a beautiful smile. In recent times, another successful advancement in this treatment alternative has been introduced- the Lumineers. These are digitally fabricated ultrathin and highly translucent advanced veneers that better allow the replication of the natural depth and aesthetic appearance of enamel. Lumineers are as thin as contact lenses, making the preparation required for this restoration even lesser invasive than that for veneers. But, has this advancement beaten its predecessor in all aspects? Are lumineers genuinely stronger, better and more aesthetic than veneers? The present study aims at shedding light on this comparison in a hope to arrive at a comparative superior alternative amongst these two aesthetic treatment modalities..

PULP-DND (DO NOT DISTURB)!

JENNY LALMALSAWMI SAILO, AUROOSA HAMID

HIMACHAL DENTAL COLLEGE, HIMACHAL PRADESH

Pulpal injuries caused by tooth preparations are a major concern in Prosthodontics and a high number of vital abutment teeth end up in endodontic therapy following prosthesis cementation.. The key to successful prosthetic treatment of vital teeth is the integral knowledge of the properties, structure, and function of the dentin-pulp complex. During tooth preparation the clinician is often unsure of the preparation proximity to the pulp chamber,. As we know that no material can provide better protection for the pulp than the dentin for that an accurate determination of the remaining dentin thickness (RDT) is required. So far, the decision about the preparation depth has been based on X-ray photography where the tiny pulp horns have been seen as shorter than they actually are and involve stoppage of procedure and x ray exposure, but with recent advances it has become possible to measure RDT during ongoing procedure see the 3D tooth structure as well.. RDT serves as excellent barrier to both pathological and iatrogenic insults, during tooth preparation. So in this presentation we will be discussing about various RDT measuring devices and techniques like prepometer, optical coherent tomograph (OCT), Endoest 3D, customized laser device, ultrasonic micrometer etc. These will help us precisely to diagnose how much of the dentin can be removed without any risk of damage to pulp vitality.. .

IMPLANT ABUTMENT: BRIDGING LINK BETWEEN IMPLANT " OCCLUSION AND INTEGRITY. "

K SRAVYA, DR M TEJA PRASANNA

KAMINENI INSTITUTE OF DENTAL SCIENCES, HYDERABAD

Implant design features are one of the fundamental elements that have an effect on implant primary stability and implant ability to sustain loading during or after osseointegration. Implant dentistry has travelled a long way from the 18th century. With an increase in the availability of implant restorative components, the selection of an appropriate implant abutment for a given clinical situation has become more challenging.. Advancements in research has overcome these problems .In regards to design of the abutment, implant abutment interface is sensitive to mechanical loading and bacterial contamination. There has been an improvement in the design of implant abutment in accordance to implant biomechanics and occlusion so as to create harmony with the joint and musculature. . So, this paper aims at discussing various aspects of implant abutment designs from basics to advancements for their application in different clinical situations..

EFFECT OF CANTILEVER ON THE LENGTH OF THE EDENTULOUS SPAN: A META-ANALYSIS

KAMAL VASHISHT, SAPNA RANI

ITS-CDSR

Cantilevers were used to extend implant supported full arch Fixed Partial Dentures with promising long-term results. Since then, the use of cantilevers in full arch, multiple unit or even single unit FPDs has been relatively common in implant reconstructions. The use of cantilevers, however, has not been without controversy. Some authors have suggested that occlusal forces on cantilevers are amplified by leverage action which might result in damaging strain.. Because many mechanical variables are present in the oral cavity, the proper load transfer between the prosthesis and the bone is important for treatment planning and for the longevity of the implant-supported fixed partial denture. The aim of this study was to further explore the impact of cantilevers on long-term technical and biological success outcomes of implant supported FPDs.

RECENT ADVANCES IN PROSTHODONTICS MATERIALS

KANAV GARG

GOVT. DENTAL COLLEGE & HOSPITAL , PATIALA

A science of dental materials covers a broad range of terminology, composition & properties used to describe or predict the performance of biomaterials. Prosthodontist should be well versed with the knowledge of science of materials, which include various impression materials, restorative materials, casting & die materials as well as cementation materials.. . Advancements in the dental materials are aimed at improving the existing materials and to bring in new materials so as to improve the quality of final restoration. Over the past 30 years, technology has advanced high and has benefited dental materials science in a variety of ways including automixing impression materials, laser applications, imaging technologies, composite technology, “smarter” & stronger ceramics and minimally invasive dental procedures.. It is important to keep in track of recent trends and advancements so that the prosthodontist and the patient be benefited. This paper presentation highlights the recent advances in impression materials, restorative and cementation materials used in prosthodontics with advantages and disadvantages of these which will help to choose the material accordingly..

GUIDANCE - PATHWAY TO PRECISION

KAVERI BHEEMAGOUD MIRAJE

DAPM RV DENTAL COLLEGE, BENGALURU, KARNATAKA

During the past decade, concept of prosthetically driven implant placement is suggested to optimize the aesthetic outcome and success of the final restoration. Each implantologist plans different protocol for implant prosthesis with the available resources. Guided implant surgery is one such protocol that is increasing in popularity, particularly due to the availability, precision and simplicity. An osteotomy is performed through a digitally designed/ printed surgical guide with the help of CBCT and dental implant planning software. This modern approach facilitates implant placement at optimal positions which enables fabrication of an aesthetic prosthesis and it also has the potential to provide the highest level of precision and control. However, there are few drawbacks with this technique. . This scientific paper presentation provides an overview of guided implant surgery and highlights the literature with regard to the effectiveness of this surgical technique..

SELECTION AND DESIGNING OF ABUTMENTS FOR IMPLANTS- AN UNFORGOTTEN BASIC FOR PRECISION

KHYATI NITINBHAI GOSAI

AMC DENTAL COLLEGE AND HOSPITAL, AHMEDABAD, GUJARAT

The ultimate success of implant has become a restorative driven field and it is therefore important to know the designing principles of abutments and its connection to the implants along with its rationale for use in clinical practice. During the past several decades, there has been a significant increase in the number of dental implant manufacturers and implant restorative components thus making it easily available for clinicians. With the ever-increasing number of implant choices and transepithelial abutments available selecting the appropriate abutment can be both complex and confusing. Use of CAD/CAM abutments have brought about a revolution in the field of implant dentistry, thus making it a viable option for replacement of the traditional conventional techniques. This paper highlights various methods and rationale behind selection, designing of various abutments, its influence on emergence profile, and the newer advances and trends that have emerged in the field of implant dentistry. . KEYWORDS: Cement retained abutment, custom abutment, implant abutment, screw retained abutment.

IMMEDIATE VERSUS EARLY LOADING OF SINGLE DENTAL IMPLANTS

KINJAL

GOENKA RESEARCH INSTITUTE OF DENTAL SCIENCE, PIPLAJ, GUJARAT

The field of science and research is ever changing and the scientific discipline of prosthodontics is no exception. The practice of prosthodontics and the supporting technology involved has evolved tremendously from the traditional to contemporary. As a result of continuous development in technology, new methods of production and new treatment concepts are becoming popular day by day.. Since 1990, implants placed in completely edentulous arches have been loaded immediately or early in selected patients. For single implant supported crown, similar success rates have been reported for both protocols and for conventional loading protocol, especially when implants are placed with adequate length and with insertion torques greater than 32 N cm. These protocols have also become widely accepted after the introduction of chemically modified titanium surface topography. Despite this little is known about the differences between survival rates and marginal bone loss in these 2 loading protocols in single implant crowns.. As a chemically modified titanium surface has a substantial effect on the qualitative and quantitative aspects of bone healing, both loading protocols have become widely documented and accepted for situations ranging from complete arch restorations to single implant supported crowns..

PROSPECTIVE ADVANCES IN IMPLANT BIO-MATERIALS

KONDA PRIYANKA, DR RAGI AKHILA

KAMINENI INSTITUTE OF DENTAL SCIENCES, HYDERABAD, TELANGANA

The science of implantology is highly dynamic. Since the discovery of osseointegration, dental implantology has been consistently evolving and careful execution of implant treatments deliver very high to medium-term success and survival rates.. Appropriate selection of the implant biomaterial is a key factor for success of implants. To optimize biologic performance, implants should be selected to reduce the negative biologic response thereby increasing the biocompatibility and provide favourable biomechanics to enable adequate function. . Various advancements in surface modifications aimed at improving speed and degree of osseointegration to enhance clinical treatment options and outcomes. Increasing demand for metal-free dental restorations, due to concern about metal corrosion, has also led to the development of ceramic-based dental implants such as Zirconia, PEEK, PEKK, Fiber reinforced composite and anatomic root form implants.. A new material has been introduced into the field of implant dentistry, called Silicon nitride, has shown satisfactory performance for all pre-requisites as a dental implant material and also because of its antibacterial properties. It is basically a ceramic which showed high mechanical/high resistance performance which led to its use as a dental prosthetic bio- material.. This paper aims at the evolution of dental bio-materials with emphasis on the newer materials available, addressing basic specifications required for any dental implant material.. .

CURRENT CONCEPTS IN SHORT DENTAL IMPLANTS

LIZA RAHMAN

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Dental implants have been an established treatment option over several decades. In patients with limited vertical bone height, the process of treatment is extensive. Many a times, prior to implant placement, augmentation procedures are required. . . Short dental implants have evolved into a promising and reliable treatment option in the oro-facial rehabilitation of atrophic mandibles and maxillae, as an alternative to vertical ridge augmentation. Dental implants are referred to as “short” if their intra-bony length measures = 8 mm and considered as “ultra-short” with lengths < 6 mm.. . It is known that achievement of primary stability is one of the prerequisites for osseointegration and treatment success. There are reports suggesting successful osseointegration with shorter implants. However, under-drilling of the crestal aspect may lead to decreased bone-to-implant contact in case of shorter implants. . . This scientific presentation will clinically analyze the feasibility and safety of a new short dental implant system with an expandable compressive design in the apical region. .

REDEFINING ALL ON FOUR CONCEPT

M KRISHNA, DR SREEPRADA DASH

INSTITUTE OF DENTAL SCIENCE, BHUBANESWAR

The "All on 4 concept" is founded on the principle that 4 implants, a combination of 2 straight anterior and 2 tilted posterior, placed within the premaxilla or anterior mandible, would provide enough support to maintain a full arch prosthesis. Posterior bone grafting, sinus or ridge augmentation for atrophic jaws, before implant placement can be an alternative; however, additional surgeries, cost, extended length of treatment, and comorbidities precluded others to become innovative to circumvent these procedures and problems. Inferior alveolar nerve lateralization has been tried with an extremely high rate of paraesthesia, and so many have abandoned this surgery. In an effort to improve implant position and decrease the cantilever length, the concept of angled implants was studied. Angulation of distal implants provides numerous biomechanical and clinical advantages for fixed implants. Simply by increasing the A-P spread, shortening the cantilever, coupled with cross arch stabilization, the implant/prosthetic outcome would be similar to traditional axial loaded cases. The angulation also provides the opportunity for longer implants to be placed while moving the implant support posteriorly and enhancing load distribution helps minimize any significant movement and negates coronal stress at the margin bone level. Multiple studies by various independent authors have shown the "All on the 4" technique has similar success rates as compared with the well-studied traditional vertical implants owing to the biomechanics.

GENETICS

MEDHAVI SINGH

ARMY COLLEGE OF DENTAL SCIENCES, DELHI

Osseointegration means bone deposition and bone creeping around the implant over a period of time during healing. Titanium being biocompatible material allows bone growth over it whenever a titanium fixture is inserted in the bone. Bone formation around the implant is a physiological process. However in some demograhic species it is fast and in others it shows delay in formation of bone. It also differs from maxilla to mandible and also depend on the biological make up of the tissue. Now the question arises about any genetic make up difference from one individual to other and a need to discuss bone growing capability, pattern of bone formation and bone response to loads , which are different from individual to individual. . Is the genetic makeup of an individual responsible for osseointegration?. This presentation discusses relationship between genetics and Osseointegration..

ALVEOLAR RIDGE RESERVATION

MOHAMMMED SALIM, AMBILI RAVINDRAN.P, DR. POORNIMA PURUSHOTHAMAN

ROYAL DENTAL COLLEGE, PALAKKAD, KERALA

Several techniques and materials have been suggested for alveolar ridge preservation. An atraumatic extraction technique, together with ridge and site preservation, is important for function and esthetics following tooth replacement. Loss of alveolar bone volume after tooth extraction often complicates prosthetic reconstruction after implant placement. Current techniques used for ridge and site preservation include the use of bone graft materials and/or resorbable membranes. Use of an appropriate technique preserves alveolar ridge anatomy, facilitates prosthetic management, optimizes function and esthetics, and enables the patient to be treated in a shorter time and with fewer surgical procedures.

ROLE OF PROSTHODONTICS IN FORENSIC DENTISTRY

MYLA RAMA KRISHNA

SREE SAI DENTAL COLLEGE AND RESEARCH INSTITUTE, SRIKAKULAM, ANDHRA PRADESH

In Forensic odontology, dentistry plays a significant role in the identification of deceased individuals. Dental identifications have always played a key role in natural and manmade disaster situations, and in particular, the mass casualties normally associated with aviation disasters. Because of the lack of a comprehensive fingerprint database, dental identification continues to be crucial in the world. It has been noted by several authors that in many cases of air disaster where the limbs are completely burnt off, some denture materials survive, especially the posterior part of acrylic dentures and metal-based dentures. Thus forensic identification by using prosthodontic appliances such as labeling of dentures and other appliances is gaining popularity as it could provide important identification clues. This paper presents a review of available literature emphasizing the fact that how a prosthodontist can play a vital role in identification of a deceased individual.

JUST LEAVE THE ROOT BEHIND – SOCKET SHIELDING

NABID ANJUM CHOUDHURY, JASMINA TABEEN BHAT

INSTITUTE OF DENTAL STUDIES AND TECHNOLOGIES, UTTAR PRADESH

An emerging concept of socket shielding has proved to be an effective method to prevent crestal bone loss. In this technique, a fraction of root is intentionally retained in the socket at the time of immediate implant placement to preserve bundle bone and periodontal ligaments. New bone formation has been seen to occur in case of space between implant and the radicular fragment. This technique ensures that the thickness of the peri implant bone and the retained radicular fragment together is more than 2mm which will help in maintaining the bone volume and aid in the success of implant.

SOCKET SHEILD- A TECHNIQUE TO PROTECT THE BONE

NAGACHANDRA REVANTH CHIMIRALA

NARAYANA DENTAL COLLEGE, NELLORE, ANDHRA PRADESH

Loss of teeth may lead to functional, structural, aesthetic and psychological problems. Though, these problems can be corrected by replacing the missing teeth with appropriate material, but irreversible bone loss in the missing teeth region is of major concern till date. The popularity of implant dentistry is widely increasing over fixed and removable prosthesis and is of greater significance. To achieve proper contour and counter the bone loss especially in anterior region to maintain aesthetics, several methods and techniques were introduced like bone augmentation techniques, bone grafting procedures, guided bone regeneration, immediate implant placement etc. These complicated procedures and their deep intervention in to the tissues restricted their use.. Clinical studies have tested the hypothesis that root retention, either of vital or pulp less teeth, may be able to avoid tissue alterations after tooth extraction. Filippi in 2001 showed in a case report that de-coronation of an ankylosed tooth preserved the alveolar bone before implant placement. Other studies have demonstrated that the preservation of de-coronated roots in the alveolar process maintains existing bone volume and also enables vertical bone growth, which has been observed coronal to the de-coronated root.. Hurzeler in 2010 proposed a new technique by preserving a part of root in the socket to retain the contour of bone and to avoid unnecessary bone resorption. Evidence by the available literature, this paper reviews various aspects of socket shield techniques. .

NAVIGATION IN ORAL IMPLANTOLOGY - A TECHNIQUE THAT REDEFINES PRECISION

NAGARAJAN C T, DR RAHOUL SHETTY

S D M COLLEGE OF DENTAL SCIENCES, DHARMASTHALA

With furtherance in science and technology, the earlier exhaustive and voluminous systems are replaced with quick and simple systems. One of such discovery is navigation in surgery especially in implantology. Traditionally, implant size, number, direction and placement depends on presurgical diagnostic images which are two dimensional and less expensive but lead to errors that in turn causes implant failure. To overcome this, three-dimensional imaging modalities gradually crawled into implants among that navigation in implantology is a very useful system. This paper aims to uncover the depth of precision of navigation technology in oral implantology.

DUAL PURPOSE IMPLANT ABUTMENT- THE MULTI-UNITS

NAKUL RAJENDRA WARE, ANJALI MENDHE

PANDIT DEENDAYAL UPADHYAY DENTAL COLLEGE, SOLAPU

When restoring a full arch, screw-retained implant prosthesis, even a minimal disparity in the draw of the implant interface access causes restorative challenges. The use of multi-unit abutments can overcome restorative challenges and is highly recommended when creating a full arch screw retained implant restorations. Multi-unit abutments provide a passive draw and positive uniform seat at all abutment sites.. Multi-unit abutments are intended to be connectors between the dental implants and multiple implant screw retained restorations. There are usually 3-4 angle correction options to choose from, ranging from straight, 0 to 45 degree. Selection for the abutment should be done at conversion appointment or at the initial prosthetic impression appointment and might need to consider changing one or more angulations in order to best support the final prosthesis before final restoration process.. Multi-unit abutments can also correct implant height disparities. Multi-unit abutments can accommodate height differences because they come in a selection of height profiles. The low profile multi-unit abutments are used when implants are placed higher, relative to the occlusal plane of the tissue, and taller profile multi-unit abutments are used when the implants are placed deeper into the bone. The goal is to seat the multi-unit abutments at about tissue level, and relatively even with each other.. This review paper highlights the uses, indication, contraindications, advantages and disadvantages of the multi –unit implant abutment.. . Key words: Screw retained implant, multi-unit abutment.

FIRST IMPRESSION MATTERS

NANDINI N R

PEOPLE'S COLLEGE OF DENTAL SCIENCES AND RESEARCH CENTER, BHOPAL, MADHYA PRADESH

Preservation of remaining structure is a primary goal of maxillofacial prosthetic rehabilitation. Maxillofacial defect may be congenital or acquired. Patients with acquired maxillary defects suffer from disturbances in mastication, speech and social activities. Obturator prostheses eliminate these problems and allow the patients to function normally in the society. Paper will include various impression techniques for obturator fabrication from conventional to advancements in impression making to the use of digital impression techniques leading to reduction of necessary appointments and more comfort to the patient.

EFFECT OF IMPLANT SIZE AND DESIGN ON IMPLANT SUCCESS RATES: A REVIEW

NAZIA AFREEN

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Early implants with documented success were fabricated from noble or base metals shaped in either basic or pin designs that attempted to create natural roots, which could then be connected to transmucosal fixed prosthesis. Failures were believed to be caused, in part, by poor biomechanics, especially poor stabilization. These implants had limited success, and mechanical and biological failures prompted dentists to create new designs that, in many instances, had no resemblance to tooth morphology. The most successful designs of this type are the staple, subperiosteal, and blade form implants. . . On selection of a particular system, dentists should consider several clinical factors, which include, but are not limited to, the site and surrounding anatomy, requirements for grafting, osseous quality, and prosthodontic design. Although implants have been used for close to a half century with great success, there are few guidelines that describe when or where to use the different types of implants available. . The increased availability of implants in varying sizes and shapes often makes selection of the most appropriate implant design confusing. This review presents the current status of literature related to implant diameter, length, and shape. The understanding of how these variables may affect implant success in varying qualities and quantities of bone allows the clinician to more accurately assess the potential success of an implant in a particular situation.

BEADING AND BOXING; A REVIEW

NENCY PARIHAR

SRI AUROBINDO COLLEGE OF DENTISTRY, INDORE

The boxing procedure is a crucial step to preserve the detail of the impression specially of the vestibular area. The aim of beading and boxing are to obtain an accurate cast with proper border and base thickness. Beading is the protection of the formed border thickness of the impression and boxing of an impression is building up vertical walls around impression. This paper describe an alternative beading and boxing technique that is compatible with all impression materials, is efficient, simple, inexpensive and practicable. This paper presentation describes new technique for beading and boxing by using a commercially available instant adhesive around the border of impression, which act as a joining agent between beading and boxing made up of modelling wax.

OSSEODENSIFICATION – TO GET MORE OUT OF WHAT IS AVAILABLE

NIKHIL KUMAR, JYOTI ARNEJA

SUDHA RUSTAGI COLLEGE OF DENTAL SCIENCES AND RESEARCH, FARIDABAD, HARYANA

The goal in implant placement is to achieve primary implant stability. It is well established that implant stability is critical for osseointegration. This is more important in recent days due to popular immediate/ early loading protocols being implemented into treatment. . . Removing bone bulk is contrary to achieving the primary stability desired, Unlike the standard traditional dental drilling techniques, a new technique is introduced which does not excavate bone tissue. Rather, bone tissue is simultaneously compacted and auto-grafted in outwardly expanding directions from the osteotomy. This novel approach to hardware implantation, termed Osseodensification, has been developed aided by specially designed burs rotating in a clockwise and anti-clockwise direction. This concept with universally compatible drills has been proposed to help in better osteotomy preparation, bone densification, and indirect sinus lift and also achieve bone expansion at different sites of varying bone densities. The purpose of this review paper is to discuss in detail on OSSEODENSIFICATION technique, procedure & its application.

DIGITAL IMPRESSIONS IN IMPLANT DENTISTRY: A PROGRESS TOWARDS PRECISENESS

NITESH SHRISHRIMAL

CHHATTISGARH DENTAL COLLEGE & RESEARCH INSTITUTE , CHHATTISGARH

With the predictable integration of implants, the emphasis is shifted towards precise prosthesis. Reproducing the intraoral relationship of implants through impression procedures is the first step in achieving an accurate, passively fitting prosthesis. To create an accurate definitive cast, it is critically important to obtain an intraoral impression that accurately captures the 3-dimensional (3-D) spatial orientation of a patient's implants, Since the accuracy of the impression affects the accuracy of definitive cast, an accurate impression is essential to fabricate a prosthesis with good fit. In the field of Prosthodontics, the concept of digital impressions using CAD/CAM is growing quickly for impression making procedures over conventional methods. The new technology is easier and precise for the clinician and more comfortable to the patient. This paper presentation reveals various impression techniques for dental implants.

ANTERIOR REFERENCE POINT – IS IT NECESSARY

NIVEDITHA S RASAD

KMCT DENTAL COLLEGE, KOZHIKODE, KERALA

It has been accepted for the past many decades that an anatomically related anterior reference point is required during a face-bow transfer. Many anterior reference points have been advocated by different researchers. This paper explores the evolution of the concept of the anterior reference point and came to the conclusion that the literature search failed to draw up evidence from controlled trials that there is any benefit from locating an anatomically related anterior reference point during face bow transfer.

DIGITALLY DESIGNING AN OBTURATOR –A PATH TO PRECISION

PARTHA PRATIM DAS, MEGHA SAHU

NEW HORIZON DENTAL COLLEGE AND RESEARCH INSTITUTE, BILASPUR, CHHATTISGARH

With the evolution of digital technology, maxillofacial prostheses are also evolving each day. Of the maxillofacial prostheses that are designed very commonly is an OBTURATOR. They are essential for restoration of oral functions such as speech, swallowing, mastication, and aesthetics after any surgery for which such defects in the maxillofacial region arises. Conventional fabrication of an obturator is complex and needs multiple scheduled visits, and an alternative process is needed for rapid fabrication in emergency cases, such as disaster-related damage or loss. Digital technology is creating exciting opportunities for improving the delivery of maxillofacial prostheses.. The development of 3D scanning and printing technologies has allowed for the accurate printing of the complex shapes of maxillofacial prostheses with details including the precise simulation of the undercut areas. Stereolithography which is a recent extension of this technology utilizes an additive process of building object geometry in layers from a virtually sectioned 3D model.. In this paper, we aim to discuss and evaluate the advanced technological aspects of fabricating an obturator compared to the conventional ones and their advantages and disadvantages which will definitely be a boon to manufacture more precise maxillofacial prostheses..

SELF ASSEMBLED MONOLAYERS(SAMs)-A NANO SURFACE MODIFICATION

PARVATHI.K. B, SWATHY JAYASOMAN

A B SHETTY MEMORIAL INSTITUTE OF DENTAL SCIENCES, MANGALORE

Dental implant is made from one or more biomaterials, titanium and its alloys being most commonly used biomaterial as it exhibits good biocompatibility, mechanical properties and machinability. Osseointegration as described by Branemark and soft tissue closure are the foundation for the success of dental implants. The improvement of the success rate of dental implants, shorten the treatment time, helps in rapid loading and reduce the occurrence of peri-implantitis and peri-implant mucositis remains an important area of research with regards to oral implantology. An increasing number of studies have been devoted to modifying the surface of titanium and titanium alloy to increase their biological activity and promote osseointegration and soft tissue healing. To achieve these objectives researchers have developed a variety of methods including sandblasting, acid etching etc. In addition to these, many substances are coated on to the titanium surface to achieve early osseointegration. The Layer-by-Layer(LbL) is an electrostatic self-assembly technique proposed by Decher (1997), LBL assembly is a nano-scale process, where multi-layer film is deposited based on complementary interactions between differently charged poly electrolyte and has attracted many because of its easy, accurate, and precise approach to modify surface properties. Therefore, in this paper we have reviewed the progress of the application of the LbL technique for the surface modification of titanium and its alloys.. .

JOURNEY TOWARDS ADVANCEMENTS

PIYALI SARKAR

MAHARSHI MARKANDESWAR UNIVERSITY, AMBALA, HARYANA

CAD/CAM was first introduced in dentistry in the mid 1980's. Recently CAD/CAM fabrication of restorations involves less chair-side time compared to the traditional technique. In office CAD/CAM doesn't require any communication with laboratory and chair-side digital impressions enable seamless communication between the clinician and the lab technician. CAD/CAM dentistry is changing the way in which clinicians provide indirect restorations to patients making the process more patient and user friendly, reliable and accurate. Hence the purpose of my presentation is to emphasize the changing perception in fabrication of complete denture, fixed prosthesis, Removable prosthesis and Implant dentistry by using chair-side CAD/CAM modern era.

“PEEK”ING FOR PRECISION : PARTIAL DENTURES REVISITED

PRAMOD SINGHRAUL

NEW HORIZON DENTAL COLLEGE AND RESEARCH INSTITUTE, CHHATTISGARH

Poly Ether Ether Ketone (PEEK), a high-performance polymer has been used in industry for many years and has also proven successful in many areas of medicine. It is now also finding increased uses in dentistry as a direct result of CAD/CAM technology. PEEK is characterized by excellent mechanical and chemical properties. Due to its combination of superior biocompatibility and ideal mechanical properties, the metal-free denture frame-work is a taste- neutral (no metal taste) the material is particularly attractive for dental restorations and it is ideal for CAD/CAM framework fabrication in prosthetic dentistry. Uses of PEEK are found in fixed prosthodontic frameworks and removable partial denture frameworks including precision attachments. This review paper on Peek material highlights the advantages and disadvantages, procedure of fabrication, indication and contraindication of the material..

THE SMILING SCAN TECHNIQUE

PRAPTI PRAVEEN, DR RACHEETA R

OXFORD DENTAL COLLEGE AND HOSPITAL, BANGALORE

The growing interest in minimally invasive implant placement and the option of delivering prefabricated provisional prosthesis immediately, have lead to development of numerous 3 dimensional planning software programs. The smiling scan technique is a new integrated workflow to optimize functional and esthetic outcome. It streamlines treatment planning by means of digitally assisted 3 dimensional prosthetically driven low cost technique. It allows successful creation of a virtual patient showing a broad smile under static conditions through superimposition of only two different digital data sets that represents conventionally used digital integrated workflow. It allows the clinician to impart all information related to patient's 3D facial anatomy while patient is smiling. Once planning is completed and approved by the clinician, Computer aided manufacturing, Rapid prototyping (3D printing), Implant planning for interim and/or definitive restoration is facilitated through the digital workflow.. The aim of this paper is to emphasize the role of digital workflow in prosthetically driven diagnosis and treatment plan.

VIRTUALIZING TRANSOGRAPHICS

PREETICA SHARMA

BHOJIA DENTAL COLLEGE & HOSPITAL, HIMACHAL PRADESH

Articulators and facebows are the integral part of any branch of prosthodontics. We have seen, that there has been a constant innovation, expansion and evolution of these two important instruments through the years. Many concepts like superiority of arcon articulator over non-arcon articulators, evolution of various techniques to record jaw movements like transographs, stereographs, axiographs, the importance of their use in dental school/ colleges and importance of terminal hinge axis has been introduced till date. Efforts are still being made and still going on to record the accurate jaw movements in order to make a prosthesis which can function harmoniously and also preserve the remaining tissues. The occlusion is developed and based on recording mandibular jaw movements and there simulation on articulators. Without a full understanding of the instrument and the theory, any attempt to use 'the instrument is doomed to failure. Critical patient demands followed by complex prosthodontic treatments to rehabilitate full mouth cases in conjunction with concepts in modern prosthodontics advocate the theory of giving precisely fitting and precisely functional prosthesis. Transographics i.e. recording of jaw movements by digital means is one such evolution. . This paper presentation will focus on recording mandibular jaw movements and centric relation digitally by means of an improvised articulator- facebow based on the concept of transographics.

CHANGING TRENDS IN ZIRCONIUM IMPLANTS

PRETTY LOUSHAMBAM, DR VYUGESWARAN S

THAI MOOGAMBIGAI DENTAL COLLEGE AND HOSPITAL CHENNAI

Zirconia is emerging as a promising alternative to conventional Titanium based implant system for oral rehabilitation with superior biological, aesthetic, mechanical and optical properties. It is important to understand the similarities and differences between zirconia and titanium implant system so as to enable the clinician to provide the best treatment outcomes for their patients. This review aims to analyze the credibility of Zirconia as an alternative to replace Titanium based implant system.

CONVENTIONAL IMPRESSION VS DIGITAL IMPRESSION: -A STEP TOWARDS MORE PRECISION

PRIYANKA KUMAR

SANTOSH DENTAL COLLEGE AND HOSPITAL, GHAZIABAD, UP

The most important step in prosthetic restoration is the impression. For centuries, the conventional impression has been used in dentistry but now the introduction of digital impression has revolutionized our prosthetic approach. Precision and accuracy of master impressions are critical to the overall excellence and marginal fit of definitive fixed restorations. The desirable properties for an ideal impression should include short chairside time, biocompatibility, a material that is safe for the purpose intended, and a user- and patient-friendly material/technique. Currently, the most popular impression materials for fixed restorations utilize polyvinylsiloxane or polyether materials. Along with these above requirements, an appropriate working and setting time for the given procedure; strong tear strength; adequate flowability, hydrophilicity and wettability; ease of removal and elastic recovery, so that any deformation during removal of the impression is rapidly reversed; a smell, taste and texture acceptable to patients; and ease of storage are needed. There are some difficulties in conventional impression making because of messy materials, tedious work and more time needed for impression making. In the new era digital impression was introduced in dentistry. Digital impression overcomes many imprecisions in the prosthetic chain due to the materials and or human errors. It allows dentists to create a virtual, computer-generated replica of the hard and soft tissues in the mouth using lasers and other optical scanning devices. As a result less imprecisions, more efficiency and accuracy with more productivity in prosthetic work.. .

CONSTRAINTS IN GERIATRIC ORAL HEALTH CARE

PRIYESH GUPTA, SANTOSH BHARDWAJ

SARASWATI DENTAL COLLEGE, UTTAR PRADESH

CONSTRAINTS IN GERIATRIC ORAL HEALTH CARE. The aim of the study is to identify the constraints in the oral health care of geriatric population.. We used a framed questionnaire to understand the current scenario which includes general details , socio-economic status, period of edentulism, access to dental facilities, reason for not pursuing treatment etc.. The barrier identified were financial insufficiency, transportation barrier, lack of awareness, lack of family and social support, psychological factors, shortage of dentists trained in geriatric care.. A classification system is necessary to identify and analyse the constraint first so that it can be acted upon.

SCULPTING MADE EASY WITH 3-D PRINTING: A REVIEW

RASHA SHAKEEL ANSARI, RESHMA ACHAMMA VARGHESE

AB SHETTY MEMORIAL INSTITUTE OF DENTAL SCIENCES, MANGALORE

The accurate reproduction of the form and surface details of missing body structures is an essential part of any successful prosthetic rehabilitation. A prosthodontist should aim to rehabilitate these defects by fabricating a prosthesis which has a natural and life-like appearance and also restore the function in order to improve the patient's quality of life. When attempting to restore the defect prosthetically, one should be able to restore the anatomy as closely as possible. This process is difficult and time consuming which requires a high level of artistic skill to form a mirror image and achieve a good aesthetic match. With the advent of digital technology, this can now be achieved easily by capturing images of the soft tissues and replicating them. In the last decade, additive manufacturing has been widely used. Additive Manufacturing (AM) or 3D printing is a process by which a 3D data is turned into a physical object by adding layer-upon-layer of material. 3D printing offers great efficiency, affordability, accessibility, reproducibility, speed and accuracy as compared to the conventional methods of fabrication. The ultimate goal of 3D printing is to fabricate a more accurate prosthesis in less time. In this paper, we aim to discuss and evaluate the advanced technological aspects of fabricating a maxillofacial prosthesis over the conventional techniques, which will definitely be a boon to manufacturing a more precise prosthesis.

SYNCRYSTALLIZATION -BECAUSE UNITED THEY STAND

RASHMI KISHOR JAGGAD, ARIBA AZMI

A.M.C. DENTAL COLLEGE & HOSPITAL, AHMEDABAD

INTRODUCTION: . SYNCRYSTALLIZATION is a major boon to modern implant dentistry due to its versatility of use in many of the complications arising in day to day implant practice.. SYNCRYSTALLIZATION is a combined science of dental art and mechanics for welding of the implant abutments for the purpose of early prosthetic rehabilitation.. It provides rigidity and immobility due to the fixation achieved by a prefabricated titanium bar.. . **PURPOSE:**.. Immediate loading of implants. Early prosthetic rehabilitation. Reduced number of implant placement. Can be used with both conventional or basal implants. In cases with tilted implants. For implants with low insertion torque values. For cases with severe ridge resorption. Simplified impression procedure. For both provisional or permanent prosthetic rehabilitation. If needed can be used along with anchorage from zygomatic implants. . **CONCLUSION:** The use of syncrystallization in implant dentistry should thus be encouraged for better surgical and prosthetic outcome.

OSSEODENSIFICATION: A NOVEL TECHNIQUE IN IMPLANT DENTISTRY

RAVI RELE, KIRAN BHAGWANRAO DESHMUKH

TERNA DENTAL COLLEGE AND HOSPITAL, NERUL

Factors like the bucco-lingual width of the edentulous ridge, the quality of bone and height of the ridge influence implant placement and its prognosis. The atrophied ridge is an added challenge. To correct this, various techniques have been described for widening including osteoinduction using appropriate growth factors, osteoconduction, revascularised bone grafts, alveolar distraction osteogenesis, guided bone regeneration, and splitting to expand the ridge. However, these methods have limitations, including the need to harvest bone from intraoral or extra-oral sites, which may lead to increased morbidity, the risk of exposure of the bone graft or membrane followed by infection, and an unpredictable rate of bone resorption after the reconstructive or regenerative procedure(s) and placement of implants. Furthermore, the conventional method for placing an implant relies on the excavation of bone, which further reduces the amount of bone in an already narrow ridge.. . A bone drilling concept, namely osseodensification, has been introduced for placement of endosteal implants to increase primary stability through densification of the osteotomy walls in both low and high density bones. Special kinds of densifying burs are used to expand the ridge laterally.. . The following presentation will help us in knowing the current challenges faced in implant therapy, and a new procedure called osseodensification which is relatively time saving and simple to execute..

SHORTENED DENTAL ARCH CONCEPT

REVATHI A, ABIRAMI V

VIVEKANANDHA DENTAL COLLEGE FOR WOMEN, TAMIL NADU

Retention of a healthy, natural, functioning dentition comprising not less than 20 teeth and not requiring a prosthesis has been described as a goal for oral health by the WHO in 1922.. This indicates a shift away from the traditional treatment philosophy of restoring a complete dentition in all cases.. . The Shortened Dental Arch (SDA) concept is defined as a specific type of dentition with an intact anterior region and a reduction in the occluding pairs of posterior teeth, starting posteriorly. This concept was proposed as a treatment strategy in the management of reduced dentitions in middle aged and elderly patients.. . There was sufficient adaptive capacity in subjects with SDA when at least four occlusal units are left (one unit corresponds to a pair of occluding premolars). . The SDA concept is based on: (i) The treatment goals are changing from the preservation of complete dental arches; (ii) anterior and premolar regions are functionally and esthetically strategic parts of the dentition, and are considered a priority in rehabilitation; (iii) it meets the requirements of the normal oral function; and (iv) it reduce the need for complex restorative treatment in the posterior region.(v) it is based on circumstantial evidence; (vi) it does not contradict current theories of occlusion..

AN INTRAORAL RADIATION SHIELDING STENT

ROHIT SINGH, MIDHULA MURLI

M.S RAMAIAH DENTAL COLLEGE, BANGALORE

Malignancies are devastating but radiotherapy used in the treatment of malignancy can leave the patient considerably compromised, though the tumor itself may resolve. Radiation of head and neck cancers can affect neighboring areas, resulting in acute mucositis, xerostomia and dental disease secondary to radiation. The uneasiness resulting from this can lead to inability to masticate and swallow, resulting in nutritional deficiencies. This causes a vicious cycle to set in, of poor healing from the primary tumors and its treatment due to inadequate nutrition. Reduction in quality of life of irradiated patient, post cancer diagnosis can also be linked to inability to eat adequately, a basic survival requirement of mankind. A shielding stent can prevent unnecessary irradiation of the surrounding normal tissues, therefore reducing the severity of reactions and limiting the radiation to necessary areas only. Since the use of these stents is personalized, close association between the radiotherapist and prosthodontist is essential. This paper presents a review of possible area of involvement by the prosthodontist to reduce radiation induced trauma to the patient.

IMPLANT MATERIAL AND ITS SURFACE TOPOGRAPHY: WHATS NEW AND NEXT

RUBAIYA RAHMAN

REGIONAL DENTAL COLLEGE, ASSAM

Osseo-integrated dental implants have been used as successful treatment modalities for early and/or immediate functional loading is not possible with the conventional implant material and surface topography. .. Titanium and its alloys have been widely used as biomaterials, especially for orthopaedic prostheses and dental implants due to its excellent mechanical properties, and biocompatibility. In some situations, they are insufficient because of their reduced mechanical strength or their toxic potential and especially late Osseo-integration. Thus, an ideal material must offer high levels of mechanical stability without releasing metal ions into the human body and early Osseo-integration. In this context, the binary Ti-Zr alloy has gained much attention, since this system guarantees increased mechanical strength with remarkable decrease in ion release, as well as early Osseo-integration due to its different surface topography. Though Ti-Zr alloy shows promising result in many adverse conditions, but it can't mimic physiological function like natural teeth. Therefore, in search of a new surface and biomaterial that can mimic natural teeth is being introduced bio-engineering the new generation- bio-hybrid implant.. . The purpose of this paper presentation is to enlighten about active surfaces of Ti-Zr alloy comparing with cpTi and also about the next generation implant, the bio-hybrid implant.

EFFECT OF DIFFERENT IMPLANT COLLAR SURFACE MODIFICATIONS ON THE MARGINAL BONE LOSS

RUCHA RAMESH GANDHI

AHMEDABAD DENTAL COLLEGE AND HOSPITAL, AHMEDABAD

Osseointegration is an essential requirement for allowing the survival of dental implants in the jaw bone. Factors such as unfavorable stress distribution, surgical trauma, implant-abutment microgap, and bacterial infiltration can detrimentally affect osseointegration and accelerate bone loss. Several factors such as implant surface quality, implant neck macro and micro design and crestal implant position play particularly crucial roles in osseointegration. The long-term clinical and aesthetic outcome of implant-supported restoration depends on preservation of both soft and hard tissues around implant, thus the overall amount of crestal bone loss may influence the clinical success. Initial breakdown of peri-implant bone takes place in the most coronal portion of the bone-implant interface. Bone resorption of 1.5 to 2mm is observed during the first year of function and is generally considered a normal physiologic process. Successive annual bone loss of 0.2mm occurs in subsequent years. Implant neck design and surface characterization have been associated with reduced marginal bone loss which has led to the development of implants with new collar configuration and topographic modification in order to improve the soft and hard tissue osseointegration. This review of literature compares the alteration in marginal bone level in implants with various surface modifications of implant collar i.e. machined(smooth and polished) surface and rough surface..

RADIOPROTECTIVE STENTS-AN OVERVIEW

RUJUTA MEHTA

GOENKA RESEARCH INSTITUTE OF DENTAL SCIENCES, PIPLAJ, GUJARAT

Radiotherapy is the standard and widely used procedure for treatment of patients with head and neck cancer with successful results. Statistics says of all the concern found in India 40% are oral cancers. In spite of the advancement of radiation techniques, this procedure is frequently associated with a wide range of complications such as radiation caries, loss of taste, xerostomia, erythema, mucosities, trismus and osteoradionecrosis with significant impairment of patients quality of life. Hypersensitivity of the teeth, taste loss, oral bacterial shift and periodontal breakdown are other problems of concern while treating patients rendering radiotherapy. The actual success of any treatment is being free of post-operative complication hamper the prognosis of treatment. Therefore it is inevitable to protect the surrounding tissues from radiation exposure. Various physical methods are also commonly used to reduce damage which include shielding and proper positioning and use of multiple fields. As a preventive measure, radiotherapy protective devices/stents can be fabricated and used during treatment. The devices are used to displace the position or to shield tissues or to assist in efficient administration of radiotherapy to the affected areas, thus limiting the post therapy morbidity.

REDEFINING PRECISION THROUGH DIGITILISATION

S CHOWDARY KUNDULA, DR S JHANSI

DRS SUDHA AND NAGESWARARAO SIDDHARTHA INSTITUTE OF DENTAL SCIENCES, ANDHRA PRADESH

ATTAINING PRECISION IN PROSTHODONTICS HAS BEEN A HERCULEAN TASK. THANKS TO THE ADVENT OF DIGITAL DENTISTRY THINGS WHICH WERE IMPOSSIBLE ARE MADE VERY MUCH POSSIBLE WITH HIGHER PRECISION. IN THIS PAPER, WE BRING TO LIGHT THE VARIOUS WAYS IN WHICH THE DIGITALISATION HAS BEEN REDEFINING PRECISION.

INTERACTION BETWEEN MAGNETIC RESONANCE IMAGING AND DENTAL MATERIALS

S PREETHI SUGANYA

JKK NATTRAJA DENTAL COLLEGE, KOMARAPALAYAM

Magnetic resonance imaging has become a common and important lifesaving diagnostic tool in recent times, for diseases of the head and neck region. Dentists should be aware of the interactions of various restorative dental materials and different technical factors by MRI. Specific knowledge about these impacts, at the dentist level and at the level of personnel at the MRI centres can save valuable time for the patient and prevent errors in MRI images. Artifacts from metal restorations are major hindrance at such times, as they result in disappearance or distortion. This presentation enlightens on interaction between MRI and the dental materials widely used in dentistry

TREFOIL- A REVOLUTIONARY INNOVATION

S. KASTHURI, S.V. SHANMUGA PRIYA

KSR INSTITUTE OF DENTAL SCIENCE AND RESEARCH, TAMIL NADU

The trefoil system is a breakthrough in the efficient treatment of the edentulous mandible. Prior to this, pre-manufactured bars might have been cost efficient, but passive fit always posed a challenge. Now, trefoil has overcome this drawback with a unique fixation mechanism, which allows screws to self-adjust in compensation for inherent deviations from ideal implant positions. This feat of engineering lies at the heart of a new fixed solution that makes it possible for clinicians to offer patients fixed and definitive teeth in a single day. This paper presentation is about the trefoil system – its surface configuration, advantages, disadvantages with indications and contraindications.

LASER IN PROSTHODONTICS

SAURABH PRATAP SINGH, PREETI SAGAR

K D DENTAL COLLEGE AND HOSPITAL, KOTA, UTTAR PRADESH

The introduction of lasers in the field of prosthodontics has replaced many conventional surgical and technical procedures and is beginning to replace the dental handpiece. Since the development of the ruby laser by Maiman in 1960, a variety of studies on the potential applications of lasers in dentistry have been conducted. Many applications like computer aided design and rapid prototyping technology, and study of occlusion in complete dentures using three-dimensional laser scanner have been developed. Its applications range from fixed Prosthodontics to treatment of dentinal hypersensitivity to surface treatment of base metal alloys. Today it even extends to the fields of dental implantology and maxillofacial Prosthodontics.

PROSTHETIC FAILURES IN IMPLANTS: REVIEW

SAVNEET KAUR HIRA, SHUCHI SINGH

I.T.S DENTAL COLLEGE, GHAZIABAD

Once a tooth is lost, an individual may seek its replacement so that his/her function and esthetics could be restored. Clinical prosthodontics, during the past decade, has significantly improved and developed according to the advancements in the science and patient's demands and needs. Conventional options in prosthodontics for substituting a missing single tooth include the removable partial denture, partial and full coverage bridgework, and resin-bonded bridgework. While dental implants are increasingly becoming the choice of replacement for missing teeth, the impediments associated with them are progressively emerging too. . This paper presentation provides data regarding prosthetic complications as they related to the following four types of implant prostheses: 1) implant fixed complete dentures; 2) implant overdentures; 3) implant fixed partial dentures; and 4) implant single crowns. The aim of this review is to discuss prosthetic complications associated with dental implants. Management protocols and possible means of avoiding certain complications are also briefly discussed.

REVOLTS IN GUIDES FOR IMPLANT PLACEMENT

SHRUTI BOTWE

MIDSR DENTAL COLLEGE, LATUR

Prosthetically driven implant dentistry with high accuracy in planning & execution of surgical procedures assures an esthetically pleasing and biologically acceptable treatment outcome with long term success rates. Implant complications are often inadvertent sequelae of improper diagnosis, treatment planning, surgical method & implant placement.. In order to achieve a successful treatment result, an accurate placement of implant is necessary. Even a minor variation in comparison to ideal placement causes difficulties in fabrication of final prosthesis. Therefore, various guides have been put forward over years for precise surgical placement of implants. Changing trends of placing the implants have emerged from ambiguous placement of implants to a more meticulous approach such as computer navigated implant surgeries. Guided surgery has not only reduced the chances of iatrogenic damage to vital structures, but also increased the esthetic and functional advantages of prosthodontically driven implant placement. Thus, this paper illustrates the various surgical guides for transferring the pre-mapped plan to placing the implants at their designated positions. Key words: Implant placement, guided surgery, surgical guide.

ROOT MEMBRANE- AGENT OF SHIELD

SHRUTI SHARMA

CHATTISGARH DENTAL COLLEGE AND RESEARCH INSTITUTE, CHATTISGARH

Tooth extractions are followed by multiple dimensional changes in the remnant alveolar bone. This physiologic phenomenon is due to loss of the periodontal ligament and the vascular vessels associated with it. They can cause esthetic problems for clinician because it is difficult to fabricate restoration that mimics soft tissue architecture of the natural contra lateral tooth. Over the years, various surgical techniques have been proposed to reduce or compensate for the effects of bone resorption triggered by the tooth extraction. Among these techniques, there are several variants of alveolar socket preservation like Root Submergence Technique, guided bone regeneration (GBR) with membranes and/or augmentation procedures with different grafting materials like connective tissue graft, as well as gingival grafts. A possible alternative to these traditional techniques is offered by the so-called "socket shield" technique, introduced for the first time by Hurzeler and colleagues in 2010. The root fragment functions like a shield which preserved the buccal bone from resorption, the palatal portion of the root is then extracted, leaving in situ the buccal portion, thereafter an immediate implant can be placed palatal to the root fragment. In this paper we will understand the effectiveness of this new surgical approach in preserving the buccal bone plate and therefore there aesthetic outcomes.

CONTEMPORARY METHODS TO MEASURE PRIMARY STABILITY IN IMMEDIATE LOADING OF DENTAL IMPLANTS

SHWETA SINGH , NIKITA KESWANI

MAITRI COLLEGE OF DENTISTRY AND RESEARCH CENTER, CHHATTISGARH

The introduction of osseointegrated implants in dentistry symbolizes a turning point in clinical dental practice. Immediate loading of dental implants has recently gained popularity due to several factors including reduction in treatment time and trauma as well as esthetics and physiological benefits to the patient. A fundamental prerequisite for implant success is substantial primary stability at the time of insertion and following loading of implant. There are numerous other factors that may contribute in providing an initial retention to the implant. Continuous monitoring in an objective and qualitative manner is important to determine the status of implant stability. Implant stability is measured at two different stages: Primary and secondary. Primary stability comes from mechanical engagement with cortical bone. Secondary stability is developed from regeneration and remodeling of the bone and tissue around the implant after insertion and affected by the primary stability, bone formation and remodelling. Historically the gold standard method to evaluate stability were microscopic or histologic analysis, radiographs, however due to invasiveness of these methods and related ethical issues various other methods have been proposed like cutting torque resistance, reverse torque analysis, model analysis etc. It is, therefore, of an utmost importance to be able to access implant stability at various time points and to project a long term prognosis for successful therapy. Therefore this review focuses on the currently available methods for evaluation of implant stability.

PARTIAL EXTRACTION THERAPIES- A NOVEL METHOD FOR PDL MEDIATED RIDGE PRESERVATION

SRUTHY S RAJ, SUCHETHA SURESHAN P

PSM COLLEGE OF DENTAL SCIENCE AND RESEARCH, AKATHIYOOR, KERAL

The health, stability, and volume of bone has been the focus of the implant-restorative treatment dilemma. A successful implant therapy is not merely a pursuit of osseointegration, but a full integration of healthy and esthetic peri-implant tissues framing the prosthesis. Hence achieving a perfect long term outcome in implant dentistry requires not only the maintenance of height and width of the facial or buccal alveolar bone wall but also the peri implant tissues.. The partial extraction therapies are a highly promising set of techniques that may significantly alter future management of the failing dentition and post extraction ridge. They collectively encompass the root and ridge-preservation techniques as applied in implant and restorative dentistry. . This technique preserves the tooth-PDL-bundle bone complex, and thus challenge the conventional extract and augment approach. Partial extraction therapies provide a viable treatment modality option and a highly conservative strategy to manage resorption of bone resulting from tooth loss; minimize the need for further hard and soft tissue augmentation and reduce the risk of peri implant tissue recession, thus maximizing functional and esthetic success.. An attempt is made through this paper to review the clinical and technical aspects of Partial extraction therapies..

SPARK EROSION: STRATEGIES TO ACHIEVE FITNESS IN PROSTHODONTICS

SUDIPTA MISTRY, SAUMYADEEP GHOSH

GNIDSR, WEST BENGAL

Modern precision laboratory procedures have a profound edge over traditional laboratory procedures in fabricating more precise restorations. Spark erosion, also known as electric discharge machining (EDM) is a process by which metal is precisely contoured into a desired shape using short-circuit impulses created within a dielectric medium similar to light oil. This process became popular in early 1940s in tool and die industry. Since then, the dental profession has adapted its uses for fabricating precision-removable partial dentures, titanium crowns, and implant-retained over dentures.. In this spark erosion machining unit, the electrode (positive potential or anode) and the work piece (negative potential or cathode) are outlined into a desired form by CAD/CAM or milling. Cutting gap or a space is maintained between the electrode and work piece through which the electrode moves towards and away from the work piece assisted by a hydraulic ram. The power level selection is determined by factors like alloy properties used, size of object and amount of erosion required.. The advent of this technology in dental field help to attain a passive fit of implant prostheses and fixed partial restorations, which is imperative in avoiding failures. The cutting-edge accuracy thus achieved, helps perfect critical adjustments in individual components thereby increasing the quality of treatment and hence, patient contentment and clinical success. .

CANTILEVER DESIGN IN IMPLANT SUPPORTED PROSTHESIS

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Cantilever design is frequently used for implant supported prosthesis, and several widely diverging guidelines have been recommended for their use ranging from no extension at all to several teeth. (Carl. E. MISCH). The distance between most anterior and most distal abutment is divided into the length of the cantilever to determine the mechanical advantage to the farthest abutment from the cantilever. Takayama has suggested that the cantilever should not extend beyond the distance between the implant to keep the mechanical advantage under one times the distance. So to achieve this, the size of the cantilever should not be greater than a premolar of similar size. The most important factor in determining the length of the cantilever is the amount of force the patient places on the cantilever. . The amount of force generated against the cantilever is more critical than other factors like cantilever length and mechanical advantage. In addition, an angled force is more detrimental than a force in the long axis of the abutments. The crown height also influences the amount of the force on the cement and bone interface. As such, cantilever magnifies any other force, factors presented and therefore should be used with caution.

RADIATION STENTS: MINIMIZING RADIATION INDUCED COMPLICATIONS PROSTHODONTICALLY

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Protecting normal tissues from radiation injury is as important as it is to target diseased tissues with radiation. The success of radiation therapy is often limited by adverse sequelae to the surrounding tissues away from the treatment field. At times, the head and neck surgeon and radiotherapist are unaware of the supportive services that a prosthodontist can achieve through a prosthesis. The use of customized radiation shields/stents is recommended to maximize the protection of normal tissues, ensure appropriate delivery to radiation to precise depth and allow reproducibility of the patient positioning on a day to day basis. A whole array of prostheses, including radiation source carriers, peri-oral cone positioning stents, shielding stents, tissue re-contouring stents, and tissue bolus compensators can be used to limit the complications following radiation therapy. These devices are usually made out of acrylic resin and are fabricated prior to the radiation simulation appointment to ensure that the calculated dosimetry is taken into account. This paper aims at describing the various prosthodontic options available to prevent post radiation morbidity.

VIRTUAL ARTICULATORS: A FUTURE ORIENTED TECHNOLOGY

SUMEDHA DEWAN

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Articulator enables the technicians to carry out a study of occlusal relations between dental arches and to detect harmful occlusal interferences on models before more sophisticated occlusal equilibration procedures are performed on the patient. But there are certain drawbacks of the mechanical articulators like they cannot simulate the mobility of the teeth when using plaster casts in it, the distortion and deformation of the mandible during loading conditions and the complexity of movement patterns because the movements of the mechanical articulator follow border structures of the mechanical joint. The accuracy of reproduction gets hampered by the deformation of bite registration material, the stability of the articulator itself and the use of rigid and expanded plaster material. Because of these basic errors, the reproduction of dynamic, excursive contacts seems to lower the reliability of mechanical articulator. In recent years many innovative and technological advancements have been made in the field of prosthodontics with several articulator designs. The virtual articulators also known as software articulators have been introduced. It is based on virtual reality and will reduce the limitation of the mechanical articulator by simulating real patient's jaw such as static and dynamic occlusion and also jaw relation.

BONE LEVEL VS TISSUE LEVEL IMPLANT: WHY AND WHERE?

SUMEET BHATTACHERJEE

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The rehabilitation of partially edentulous patients with dental implants has become a routine method of treatment. The maintenance of the crestal bone support around dental implants over a period of time is considered as one of the most important factors of long-term efficacy and criteria of successful dental implant treatment. Several issues to be considered during treatment planning include the type and number of implants required to replace the missing teeth, appropriate positions for implantation, prosthesis design, cantilever length, proper diameter and length of implants, prosthetic materials, and type of occlusion. Studies have shown that supracrestal position of implant placement results in significantly lesser marginal bone reactions as compared to crestally placed implants. It has been seen that tissue level implants with the Implant abutment junction (IAJ) coronal to the crestal bone level would result in minimal marginal bone resorption. However, the concept of horizontal offset (platform switching) has made it possible to place implant shoulders at the crestal bone level with predictable minimal marginal bone resorption. Certain studies also show bone deposition on the implant shoulder when implants with horizontal offset abutments were used with the IAJ in deeper subcrestal regions.

FIXED DETACHABLE HYBRID PROSTHESIS

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The importance of an accurately fitting fixed prosthesis or a removable prosthesis is essential for the success of the restoration. Ill fitting prosthesis may cause mechanical failure of the prosthesis, implant system or biologic complications of the surrounding tissues. The major limitations of the cast partial dentures in distal extension situations are lesser retentive denture and aesthetics which is affected due to display of clasp retainer assemblies. These limitations of cast partial denture are reduced with attachment hybrid prosthesis. A precisely attached fixed prosthesis or a removable prosthesis on the denture bearing area is of paramount importance for the success of the restoration. The attachment hybrid prosthesis uses an extra coronal attachment, with the matrix which is casted with the FPD framework and the matrix to the RPD. The fixed removable union between the FPD and RPD improves the retention and reduces the limitations of the conventional cast partial dentures.

OSSEODENSIFICATION: A NOVEL APPROACH TO IMPLANT DENTISTRY

SURABHI HALDER

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Osseodensification sets a paradigm for the preservation of the compact bone at the site of implant placement. This presentation speaks about the necessary introduction to this new approach and how it is different from the conventional approach. It also speaks about the bone quality bone matrix formation and how it provides primary stability at the implant site thus increasing osseointegration process.

A NEXT-GEN MAGNETO-DYNAMIC METHOD OF IMPLANT PLACEMENT....!

SWAPNITA KIRAN VAITY, SURBHI MANOJ JAIN

D Y PATIL SCHOOL OF DENTISTRY, NAVI MUMBAI

A next-gen magneto-dynamic method of implant placement....!. Abstract: Certainly, technology has helped us provide dental services of higher quality to our patients. Magnetic mallet has been lately an innovative addition to the host of advances in recent times. The main applications of magnetic mallet are implant placement, helping us avoid all the disadvantages of the drills and in maxillary sinus lift surgery, in protocols of vertical and horizontal compaction and expansion, and more generally in all cases where the surgical hammer is used, as also root extraction, insertion of post-extractive implants, and crown retrieval. This paper will highlight its feature, part of the kit, its application, its advantages followed by a case presentation.

NANOMODIFIED PEEK IMPLANTS

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Polyetheretherketone (PEEK) is a semi crystalline linear polycyclic thermoplastic that has been proposed as a substitute for metals in biomaterials. PEEK can also be applied to dental implant material as a superstructure, implant abutment or implant body. If PEEK is used as a dental implant body, it may exhibit lower stress shielding than titanium due to closer compatibility of the mechanical properties of PEEK and bone. There are many methods to increase the bioactivity of PEEK by increasing the surface roughness, increasing the hydrophilicity and coating osseoconductive materials. Melt-bending with bioactive nanoparticles can be used to produce bioactive nanocomposites, while spin-coating, glass plasma etching, electron beam and plasma-ion immersion implantation can be used to modify the surface of PEEK implants in order to make them more bioactive. This paper summarizes the current research on PEEK applications in dental implants, especially for the improvement of PEEK surface and body modifications.

A RISK-BASED APPROACH TO SIMPLIFY THE MANAGEMENT OF FRACTURED IMPLANT SCREWS

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The long-term success of implant prosthesis is dependent on both biological and mechanical factors. Fractured abutments and prosthetic screws are a challenging and time-consuming complication in implant dentistry and often require meticulous planning for its successful management. When a screw fractures, the fragment inside the implant or abutment should either be removed or modified to re-attain the original ability of the implant to retain prosthesis. . . Several techniques have been reported for the clinical management of broken screws. In the situation of a fractured implant screw, initial treatment in the form of conservative retrieval is always the first and most preferable option. The retrieval techniques can be roughly classified as low risk (instrumentation and instrument modification), moderate risk (screw modification) and high risk (implant modification) of irreversible implant damage and should be applied in a structured approach. . . Some of the low risk techniques include use of scalers, modified spoon excavators etc. The moderate risk techniques include the use of screw retrieval kits, rotary instruments with modified burs. The high-risk techniques include modification of the internal anatomy of the implant and placement of a custom cast post and core. . . This paper will highlight the various techniques used for screw retrieval, along with the advantages and the indications for each of the techniques. A case report on the clinical management of broken abutment screw will also be presented.

RECENT ADVANCES IN PRECISE MARGIN PREPARATION FOR FIXED PROSTHODONTICS

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COLLEGE OF DENTAL SCIENCE AND RESEARCH CENTER, AHMEDABAD, GUJARAT

RECENT ADVANCES IN PRECISE MARGIN PREPARATION FOR FIXED PROSTHODONTICS. ABSTRACT. The success of a Prosthodontic restoration largely depends on the accuracy with which the preparation of the tooth is carried out, given that excessive reduction of dental tissue can lead to retention problems and corresponding functional loads. Therefore, sufficient professional knowledge and perfect control of instruments are fundamental prerequisites for achieving good final result. This also applies to finishing abutment margins and surfaces. Smooth and precise marginal preparation facilitates impression making and fabrication of a precisely fitting restoration, which contributes to a durable, esthetic and functional result. . Ultrasonic instruments have oscillating action compared with the rotation of conventional instruments which has led to their recent adaptation to finish line preparations. These instruments are atraumatic to gingival attachment, pulp and adjacent teeth. Esthetic restorations in anterior dentition with subgingival finish line can be fulfilled with them. Their action allows for a greater degree of control when preparing areas with difficult access. Laser technologies can also be used which enhance the precision of tooth preparation along with the quality and predictability of treatment outcome - all for patient's ultimate benefit. Thus, clinicians should utilize these recent advances in technology to have precise tooth preparation for achieving predictable success in fixed prosthodontics.

TECHNIQUES OF CUSTOM MADE PRECISION ATTACHMENTS IN OVER DENTURES

TEJASVI DARAM

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. The desire to balance between functional stability and cosmetic appeal in dental prosthesis gave rise to the development of Precision Attachments in dental field. Since then, Precision Attachments have always been surrounded by an aura of mystery. The use of Precision Attachments for partial denture retention is a practice builder for the better class of dentistry and helps to elevate the general standards of partial prosthodontics. Even though this is the best possible retention aid available, it comes at a fairly high cost. In this presentation, our aim is to present, same quality of precision with desirable mechanical proper ties using day to day items like plastic buttons, coffee straws in replacement to conventional matrix and patrix system. This presentation give us an insight of basic information about precision attachments and how simple attachment systems can be inspirational to the young dentist.

PHOENIX BONE: THE ANSWER TO AUGMENTATION

TRAILOKYA NARAYAN DHIR SAMANT

M R AMBEDKAR DENTAL COLLEGE AND HOSPITAL, BENGALURU

Large-size bone defects can severely compromise both aesthetics and musculoskeletal functions. Many patients present with . . insufficient alveolar bone or they lack the confidence to undergo major invasive surgical or auto grafting procedure, in these cases adipose derived stem cells (ASCs)-based bone tissue engineering has recently become a promising treatment. strategy. As robust osteoinductive cytokines, bone morphogenetic proteins (BMPs) are commonly used to promote the . . osteogenesis of ASCs. In this process, BMP signalling plays a pivotal role. Bone Morphogenetic Proteins (BMPs) form a unique . . group of proteins within the Transforming Growth Factor beta (TGF- β) super family of genes and have pivotal roles in the . . regulation of bone induction, maintenance and repair. They act through an autocrine or paracrine mechanism by binding to . . cell surface receptors and initiating a sequence of downstream events that have effects on various cell types. Storage . . within the bone matrix allows for their involvement in the modelling/remodelling process by mediating coupling of osteoblasts and osteoclasts. This study reviews the application, indication, contra-indication of Bone Morphogenic Protein. (BMP)

IMPRESSION PROCEDURES FOR PATIENTS WITH RESTRICTED MOUTH OPENING-A REVIEW.

URVASHI CHAHAL

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Detailed impression of tissues and record of anatomic landmarks is required for fabrication of any prosthesis. This is essential for the development of custom tray and final impressions. In patients who have limited mouth opening, inserting a stock tray may not be possible. This presentation deals with techniques adopted for such patients in an attempt to restore their function and esthetics.

MAXILLARY PROTRUSION AND WIDER UPPER ARCH: A CONCEPT OF TEETH ARRANGEMENT

VAIBHAV BUDAKOTI, SHIKHA

INSTITUTE OF DENTAL SCIENCES BAREILLY. UTTAR PRADESH

The upper-lower ridge relationship is an individual problem for each complete denture patient. When it is normal, not much effort is needed to obtain a suitable arrangement of artificial teeth. However, when these relations are abnormal, one has to deviate from the usual procedures to achieve successful results. The lower cast appears to be too far back in its relationship to the upper cast. However, the artificial teeth must be arranged to harmonize with the centric relation, even though the problems of tooth arrangement are complicated by the disharmony in the sizes of the two jaws. The problems involve both mechanical and esthetic considerations. The current paper describes a method and management of arranging artificial teeth for patients with an unfavourable Class II jaw relationship i.e., maxillary protrusion and wider maxillary arch. The posterior teeth are positioned so that esthetics, proper lip and cheek support are not sacrificed in order to develop balanced occlusion that should be free of lateral interference.

TOOTH-IMPLANT SUPPORTED TELESCOPIC PROSTHESIS – A PRAGMATIC APPROACH?

VAIBHAV BUTTAN, RAGHAV VASUDEVA

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The use of tooth-implant connection is still not universally accepted or advocated. The use of dental implants in cases where healthier teeth are present adjacent to less favourable bone poses a unique problem. If these teeth are retained, the feasibility of providing a fixed rehabilitation with use of implants becomes questionable. If these teeth are extracted, it goes against the very foundation of prosthodontics - the de van's dictum, "preservation of what remains is more important than meticulous replacement of what is missing".. The telescopic prosthesis resolves this problem by providing a fixed-removable solution in such cases by using both implants and teeth as abutments. This review presentation is an attempt to present this treatment option and review the literature supporting or rejecting the same.

GINGIVAL BIOTYPE-A PROSTHODONTIST INSIGHT

VAIBHAV SHRIVASTAVA

During treatment planning it is important to recognize different gingival biotypes and forms, because they can affect the esthetic outcome of the treatment. This review provides an insight into the different gingival biotypes, their response to inflammation and trauma; significance in different prosthodontic modalities like esthetic rehabilitation and implant therapy.

CHANGING SURFACE TOPOGRAPHY OF DENTAL IMPLANTS- SMALL WONDERS, PAVING A GREAT FUTURE

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Title- CHANGING SURFACE TOPOGRAPHY OF DENTAL IMPLANTS- SMALL WONDERS, PAVING A GREAT FUTURE. Abstract- The endosseous dental implant has become a scientifically accepted and well-documented treatment for fully and partially edentulous patients because of its good biocompatibility and mechanical properties. But for successful implant osseointegration various factors such as biologic factors, local factors, clinician, and implant -related factors play a very important role. Amongst all the above listed factors, implant surface plays a vital role. This surface is continuously being improved to achieve faster osseointegration and a stronger bone to implant interface. Dental implant surface should stimulate bone growth around them upon placement. The surface modification of implants can be obtained on three levels namely- macrotopographically, microtopographically, and nanotopographically. The surface topography of an implant is variably modified with surface treatments and coating in order to promote predictive osseointegration. Also movement, form and arrangement of the cells of various tissues were influenced by the different surface patterns. The future of dental implantology should aspire at establishing surfaces with standardized surface chemistry of a titanium (Ti) dental implant which implies to be assuring to enhance osseointegration.

SOCKET SHIELDING TECHNIQUE

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Healing of extraction sockets are characterized by bone formation within the socket and loss of the alveolar ridge width and height externally .The alteration of ridge contour may compromise the restoration-oriented three-dimensional positioning of the implant which requires optimal support and stability of surrounding hard and soft tissues.In esthetic region, the height and thickness of facial and interproximal bone walls are the important factors for successful pink esthetic outcomes, which are made up by the color, shape, and character of the marginal peri-implant mucosa and the presence of interdental papilla. Different techniques such as immediate implant placement and ridge preservation procedure have been proposed to maintain the ridge dimension to a certain amount. However, applying these methods to extraction sockets could not. completely preserve the coronal part of facial bone walls which were comprised almost entirely of bundle bone.In 2010, Hürzeler et al. introduced a new method, the socket shield technique, in which a partial root fragment was retained around an immediately placed implant with the aim of avoiding tissue alterations after tooth extraction.Healthy periodontal ligament of the tooth segment, minor volumetric change of the ridge contour, and direct bone-to-implant contact manifested that this . technique is a feasible treatment option.

ALL-ON-4 VARIATIONS

VINEET SHARMA, MONIKA SUNDA

R.U.H.S. COLLEGE OF DENTAL SCIENCES, JAIPUR, RAJASTHAN

All on Four concept offers as an alternative to conventional implant application. The All on Four concept is founded on the principle that four implant, a combination of two straight anteriors and two tilted posteriors placed within the premaxilla or anterior mandible, would provide enough support to maintain a full arch fixed prosthesis. Splinted implant along with full arch prosthesis are biomechanically sound with marginal bone height maintained with these implants. This paper describes the basic concept of All on Four and its variations.

TAKING A PEEK AT PEEK- A NEOTERIC ALTERNATIVE IN PROSTHETIC DENTISTRY AND IMPLANTOLOGY

YASHI GARG, ANSHU SHARMA

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Thermoplastic polymers, like PEEK, have many potential uses in field of dentistry. It is used as an alternative implant material to metals like titanium. It exhibits lesser stress shielding than titanium, has mechanical advantages equal to bone and has four times lesser modulus of elasticity than others. It is more aesthetic, stable, biocompatible and has reduced degree of discoloration thus, a promising material for RPDs and FPDs. Peek is therefore establishing a future prospect in the field of dentistry and with further modifications its application may increase manifold.

PRE-TREATMENT EVALUATION OF IMPLANT SUPPORTED COMPLETE DENTURE: A NEW INSIGHT

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Potential patients for implant restoration of the completely edentulous arches are usually interested in receiving a fixed prosthesis as opposed to a removable denture. The ability to determine early, during diagnosis, the type of prostheses necessary to provide the best functional and esthetic results is advantageous. Treatment of the edentulous arches poses a number of challenges. The nature of the patient's dental condition and whether the residual ridge is visible in both the relaxed lip and smiling state, direct the choice of dental prostheses. Expectations regarding the esthetics of the definitive prosthesis are high. Achieving adequate phonetics and stable masticatory function are major concerns. A systematic pretreatment approach for evaluation of edentulous patients allows a better communication between the implant team as well as the patients, leading to a predictable treatment outcome. The purpose of this paper is to outline initial screening methodology for determining which type of implant-supported prostheses should be selected to fulfill esthetic, phonetic, and hygienic demands which can be a practical application for implant treatment.