# CASE REPORT

# 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

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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 stepwise 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

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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 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 in mandible. Author: Aanchal Taneja (0557). Co-author: Sonika Mishra (0825). Institution: Inderprastha Dental college and hospital, Ghaziabad, Uttar Pradesh. Contact details: 999215805.

#### **REATTACHMENT OF FRACTURED ANTERIOR TEETH :SAVING THE UNSAVABLE!**

#### AARTI MEHTA

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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

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"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**

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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. 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

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PROSTHODONTIC REHABILITATION OF HEMIMAXILLECTOMY AND HEMIMANDIBELECTOMY 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 actas 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 masticatoryefficiency. 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**

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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**

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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, affordabilityand 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

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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.10ther 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 el 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, lvoclar 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, lvoclar Vivadent). This presentation showcases the advantages of this new combination over the conventional hybrid prosthesis.

#### SPECIALIZED DENTURES: AN INDIVIDUALISTIC APPROACH

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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

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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.

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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

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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 premaxillary region which was rehabilitated using modified Andrews's bridge design.

#### THE COVER UP-WORKING AROUND EXISTING ANATOMY

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#### 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**

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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 unresectedside. 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 ASSISSTED BY ENDOSCOPE AND CADWELL – LUC TECHNIQUE.

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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 perimplantitis, 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

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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.**

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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 CERVICOBRANCHIAL PAIN AND HEADACHE.

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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 cervicobranchial 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 cervicobranchial pain in adjunct to the conventional physical therapy.

#### ATTACHMENTS-CLASSICAL WAY TO CLING ON

DEENSON A, SHRUTI AGARWAL

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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

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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 edentiulous patient. Howevever 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**

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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

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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

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#### 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

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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 longitivity 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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KMCT DENTAL COLLEGE, KOZHIKODE, KERALA

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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SREE MOOKAMBIKA INSTITUTE OF DENTAL SCIENCES, KULASEKHARAM, KANYAKUMARI

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.

FIRDAUS JUNEJA, BHAGYASHRI BACHATE

ACPM DENTAL COLLEGE, DHULE

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

G KRANTHI KIRAN, S.U. MEGHANA GAJAVALLI

VISHNU DENTAL COLLEGE, BHIMAVARAM, ANDHRA PRADESH

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 a interdisciplinary approach of a 22 yr young male patient diagnosed with Central giant cell granuloma. The treatment procedures included surgical removal of the tumor, fabrication of interim obturator and a definitive obturator.

#### **PROSTHETIC REHABILITATION OF ECTODERMAL DYSPLASIA - A CLINICAL CASE REPORT**

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SIBAR INSTITUTE OF DENTAL SCIENCES, ANDHRA PRADESH

Ectodermal dysplasia is a heterogeneous group of inher-ited 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 hypohydortic 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 exmination 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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NARSINHBHAI PATEL DENTAL COLLAGE, VISNAGAR, GUJARAT

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."

GAYATHRI K.R

#### DEPARTMENT OF PROSTHODONTICS, B.V.V.S CAMPUS, BAGALKOT

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**

GAYATHRI SATHYAMOORTHY

MADHA DENTAL COLLEGE, CHENNAI

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

GOURI SR, RATHEESH N

ROYAL DENTAL COLLEGE, PALAKKAD, KERALA

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**

HARSHALKUMAR WAGHMARE

SINHGAD DENTAL COLLEGE AND HOSPITAL, PUNE

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

**HIMANSHI YADAV** 

FDS, IMS, BHU

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 deficiet 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 severly periodontally compromised dentition. She has been treated with Paulo Malo Bridge as mandibular prosthesis.

#### **PROSTHODONTIC REHABILITATION OF HEMIMAXILLECTOMY PATIENTS**

#### ISHA SETHI, YUKTI CHOUDHARY

#### MAHATMA GANDHI DENTAL COLLEGE & HOSPITAL, SRIGANGANAGAR

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** 

#### PACIFIC DENTAL COLLEGE AND HOSPITAL, UDAIPUR

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 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

JAGRITI SINGHAL,

DAV (C) DENTAL COLLEGE YAMUNANAGAR

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

JEEVITHA MANI, MITHRA R

ADHIPARASAKTHI DENTAL COLLEGE AND HOSPITAL, MELMARUVATHUR, TAMIL NADU

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

JIJI 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

GOVT DENTAL COLLEGE, KOTTAYAM

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**

JYOTHSNA MK, HASEENA UMMER

KANNUR DENTAL COLLEGE, KANNUR

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

K. TILAK VARDHAN REDDY

GDC&H, HYDERABAD

Gunning splint fabrication in a geriatric patient for mandibular fracture fixation . A fracture of the maxillary or mandibular bone requires the af?icted to undergo a maxillo mandibular ?xation for the establishment of pre traumatic occlusion. This process is quiet 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

#### DAV DENTAL COLLEGE, YAMUNANAGAR

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 selfesteem. 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 prescence 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, Ultrasonicbath, Airotar spray with Steam jet (test groups) and compared with New abutment screw (control group). The results will be stastistically 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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CSMSS DENTAL COLLEGE AND HOSPITAL, AURANGABAD, MAHARASHTRA

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 periodontium. 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

MEENAKSHI AMMAL DENTAL COLLEGE & HOSPITAL, CHENNAI

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** 

SINHGAD DENTAL COLLEGE AND HOSPITAL, PUNE, MAHARASHTRA

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

L. SATYA SRI, B.J. VIDYA SREE

MEGHNA INSTITUTE OF DENTAL SCIENCES, TELANGANA

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 imlant 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 advantades of hybrid prosthesis are as follow:. 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 prevente 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 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 alveoloplasty. 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 confirm to the soft tissue changes during various stages of healing. Patient who undergo maxillary resection are rehabilitated in three phases by an obturator 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

Palotopharyngeal 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.

MOHD. SIDDIQUE QURESHI, TEJAS GOVIND AGARWAL

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 prothesis, 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 Artifical 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.

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## MANAGEMENT OF DEFICIENT BONE AT IMPLANT SITE: A CASE REPORT

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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 fuctional 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 timeconsuming procedure, in significantly less morbidity, in decreased financial costs and a more comfortable postsurgical 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 irt 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 TECNIQUES FOR DIAGNOSIS IN IMPLANTOLOGY**

NIKHIL N PAWAR

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. 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.

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## AN IMMEDIATE REHABILITATION WITH HYBRID PROSTHESIS- A CASE REPORT

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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 com-pleted 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

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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

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## 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 proceeded 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.

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## PHOTOFUNCTIONALIZATION IN IMMEDIATE DENTAL IMPLANT

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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.

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## "A BEAUTIFUL SMILE ALWAYS GIVES DELIGHT"- A CASE REPORT

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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 dentitstry 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

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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 MANAGMENT 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.

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## MODIFIED IMPRESSION TECHNIQUE FOR PATIENT WITH MICROSTOMIA

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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 reason. 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

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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 longitivity 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 ossteointegrated 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**

RAKESH DHRUVE, ABHISHEK KUMAR GUPTA

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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 mandibule 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.

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## THE ROLE OF NANOPARTICLES IN PRECISION

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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

Prosthodontic 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 prosthodontic 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 prosthodontic 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 prosthodontic 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 EQAUTOR 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 infuence 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** 

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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

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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.

# OCCLUSAL GUIDING FLANGE PROSTHESIS FOR MANAGEMENT OF HEMIMANDIBULECTOMY-A CASE REPORT

SANGEETA MADAAN, RAHUL JAINER

ITS DENTAL COLLEGE, KAITHAL

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

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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 mandibula & 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 METODS- 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

MGM DENTAL COLLEGE, NAVI MUMBAI, MAHARASHTRA

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

SHUBHAM JAIN, RAJEEV SRIVASTAVA

MODERN DENTAL COLLEGE, INDORE, MADHYA PRADESH

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 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 emphasizes 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

#### SILPA ABRAHAM, SACHIN K CHANDRAN

#### 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 odentogenic 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 ANOPTHALMIC SOCKET

SIVASANKAR REDDY VARE, KALLURI LAKSHMI MOUNIKA 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 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 rechange 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 (ZrO2), 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

MCODS, 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

SURABHI CHHABRA, KANDAVALLI RAMYA

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 regenrative 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

R. AHMED DENTAL COLLEGE AND HOSOPITAL, KOLKATA

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

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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 signifcant 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

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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

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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.

## REHABILITAION OF MAXILLARY ANTERIOR EDENTULOUS REGION USING IMPLANTS : A CASE SERIES

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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

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#### **DIFFERENT RETENTIVE AIDS FOR ORBITAL PROSTHESIS – A CASE SERIES**

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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

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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 Girrbach 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

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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

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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.

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#### AUTOGENOUS DENTIN AS NOVEL GRAFT MATERIAL IN IMMEDIATE IMPLANT

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Rehabilitation of missing teeth with dental implants is an established protocol nowadays. Advancement in dental implants has lead 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

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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**

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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 Collumn 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

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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 oxygencontaining species such as H2O2, OH?, and O2? that damage the bacterial cells are produced by the photoinitiating 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

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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. Succesful 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.