

Full Mouth Rehabilitation of Partially Edentulous Jaws with Implants and Prosthesis

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Case Report

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Abstract: The prosthetic considerations for treatment of partially edentulous patients involve evaluation of important aspects such as presence of certain functional or skeletal deficits, orientation of the occlusal plane, free-way space, size and location of edentulous areas, number, strategic location and quality of the likely abutment teeth, vertical dimension, and the type of occlusion. A comprehensive evaluation, multidisciplinary approach and a sequential treatment plan, worked out in harmony with the patient's perceptions are important factors to ensure a successful outcome. One of the major conditions faced for full mouth rehabilitation is the severely worn dentition. In the present era with increased life expectancy, improved dental care, increased retention of teeth and increased awareness about oral health number of patients with generalized worn dentition have increased. This case report presents a case of partially edentulous bilateral jaws in which full mouth rehabilitation was done using implants and tooth supported prosthesis.

Keywords: Full mouth rehabilitation, implant supported prosthesis, partial edentulism.

INTRODUCTION

The wear of dental hard tissue is a natural and progressive phenomenon occurs in oral cavity which leads to the loss of the original anatomical form. Excessive wear results in unacceptable damage to the occluding surfaces and alteration of the functional path of masticatory movement [1]. Severely worn dentition is one of the prime indications for full mouth rehabilitation [2, 3]. The treatment options for partially edentulous patients are removal or fixed prosthesis.

Both these treatment options have wide range of sub-classes ranging from single tooth removable prosthesis to implant fixed supported dentures or prosthesis [4]. Clinical decision solely depends on two condition. Implant supported prostheses have introduced new hope for the 'edentulous cripples' and have become an acceptable treatment modality. The prosthodontist is daily confronted with making decisions to replace missing teeth or defective restorations, to retain or extract periodontally compromised potential abutment teeth, or to prescribe a specific occlusal scheme for a restored dentition. This process is an extension of the clinician's opinion based on his knowledge and clinical experience and strongly influences the treatment modality chosen for a particular patient [5]. A partially edentulous dentition can be practically classified into two groups one is Uncomplicated impaired dentition where tooth loss is the only anomaly and other is Complicated impaired

dentition, which is characterized by presence of complicating factors such as poor oral hygiene, caries, periodontal disease, and migration due to tooth loss [6]. The Sequence of Occlusal Rehabilitation is divided into three steps. Primarily Quadrant arch technique in which one quadrant is treated at a time. This technique has the advantage that the vertical dimension can be maintained and lengthy appointments are avoided. Secondly Simultaneous arch technique in which maxillary and mandibular arches are reconstructed simultaneously. The occlusion can be better established, aesthetics achieved is better, and number of appointments is reduced. However, this is more complicated, requires a skilled operator and technician, and may be difficult for beginners and finally segmented simultaneous arch technique which enjoys advantages of the both the above techniques and is able to provide the best alternative [7]. Full mouth rehabilitation involves restoring the teeth, jaw muscles and self-esteem back to

a natural looking condition. This case report describes management of severe anterior attrition resulting due to loss of posterior teeth in a patient by mandibular overdenture and maxillary fixed prosthesis [8]. This case report presents a case of partially edentulous bilateral jaws in which full mouth rehabilitation was done using implants and tooth supported prosthesis.

CASE REPORT

A 48 years old female patient came with a chief complaint of decayed and missing teeth. Patient want to get the treatment of decayed teeth and replacement of missing teeth by prosthesis. On clinical examination teeth present were 11, 12, 13, 17, 21, 22, 23, 27, 31, 32, 33, 34, 41, 42, 43, 44 and rest were missing teeth. Decayed teeth were 11, 12, 13, 17, 23, 27, 32, 33, 34. Patient was advised a CBCT scan which elicited generalized interdental alveolar bone loss in both the arches, attrition i.r.t. 21, 23, 34, 35. Ill-defined periapical radiolucency i.r.t. 21. Thinning and possible perforation of labial cortical plate in 21 regions. Coronal radiolucency involving up to dentin in 22, 31,

43. Root caries with 44. Ill defined radiopacity with 37 region (Figure-1). Planned treatment was oral prophylaxis and extraction of unrestorable and unstable teeth followed by root canal treatment i.r.t. 11, 12, 13, 17, 23, 27, 32, 33, 34 and fixed prosthesis using teeth and implants which were placed in 14, 15, 24, 25, 36, 37, 45, 46, 47 region. Maxillary and mandibular bone height and width were measured and implants were selected according to the measurements available for better stability. Other findings were thickening of the mucosal lining of the left maxillary sinus and lingual surface undercut i.r.t posterior mandibular body region bilaterally. Patient underwent multi visit root canal treatment with all planned teeth and full mouth fixed prosthesis with the help of implant placement. Patient was recalled and implants were placed. Pre-prosthesis work up was done and prosthesis was made in support to teeth and implants (Figure-2). Final occlusion was checked in trail. Combined implant and teeth supported prosthesis was delivered to the patient to achieve full mouth rehabilitation (Figure-3).



Fig-3: Clinical & Radiographic Image of Patient for Implant Placements & Full Mouth Rehabilitation



Fig-2: Pre Clinical Work Up For Full Mouth Rehabilitation



Fig-3: Pre & Post Clinical & OPG Picture – Full Mouth Rehabilitation

CONCLUSION

Proper treatment plan needs to be established before starting clinical procedures. A thorough clinical examination, radiographic assessment and diagnostic wax up are essential. Aim of prosthetic reconstructions is to preserve and restore health, aesthetics, and function. The current treatment trends for partially edentulous patients with missing single or multiple teeth range from an interim removable prosthesis, definitive cast partial denture, resin bonded prosthesis, foundation restorations, fixed partial denture or an osseointegrated prosthesis. Decisions to replace missing

teeth, to retain or extract periodontally compromised potential abutment teeth or to prescribe a specific occlusal scheme for a restored dentition, confront the clinician on a routine basis. A comprehensive evaluation, multidisciplinary approach and a sequential treatment plan worked out in harmony with the patient's perceptions are important for a long-term successful outcome to increase quality of life.

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