



ISSN Print: 2394-7489  
ISSN Online: 2394-7497  
IJADS 2018; 4(3): 382-384  
© 2018 IJADS  
www.oraljournal.com  
Received: 28-05-2018  
Accepted: 29-06-2018

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## Multiple dental implants to achieve occlusal rehabilitation: Case series

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### Abstract

Restoration of a partially edentulous patient's mouth with complete esthetic and functional reconstruction may present numerous problems to the dental professional. The major concerns include centric relation, esthetics, phonetics and the patient's occlusal vertical dimension. This article presents case series of four patients with partially edentulous area in maxilla, mandible and combination of both jaws which have been restored with the help of implant supported prosthesis to restore occlusal rehabilitation for their function.

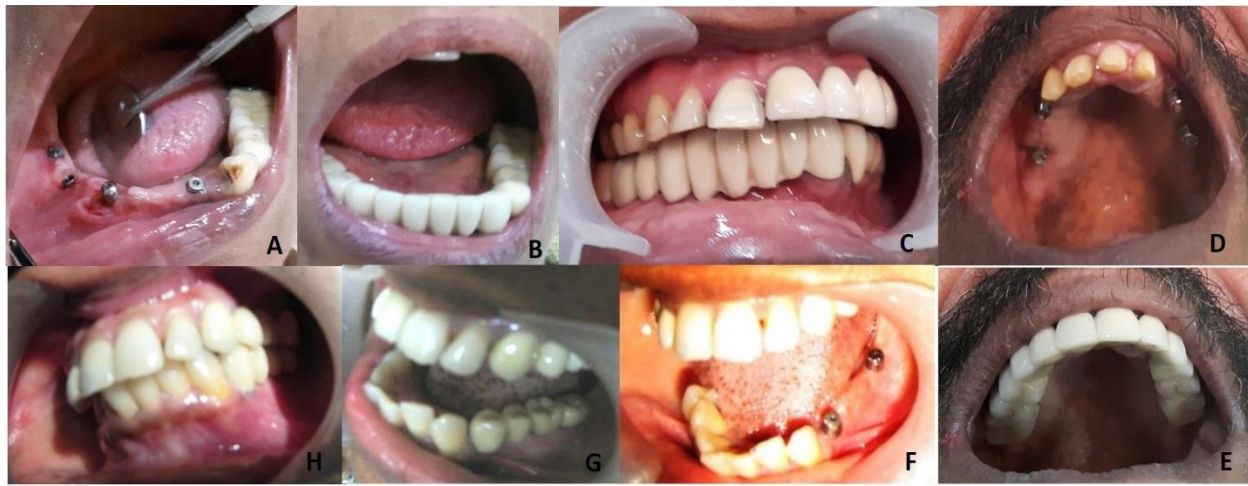
**Keywords:** Dental implants, occlusal rehabilitation, prosthesis, function

### Introduction

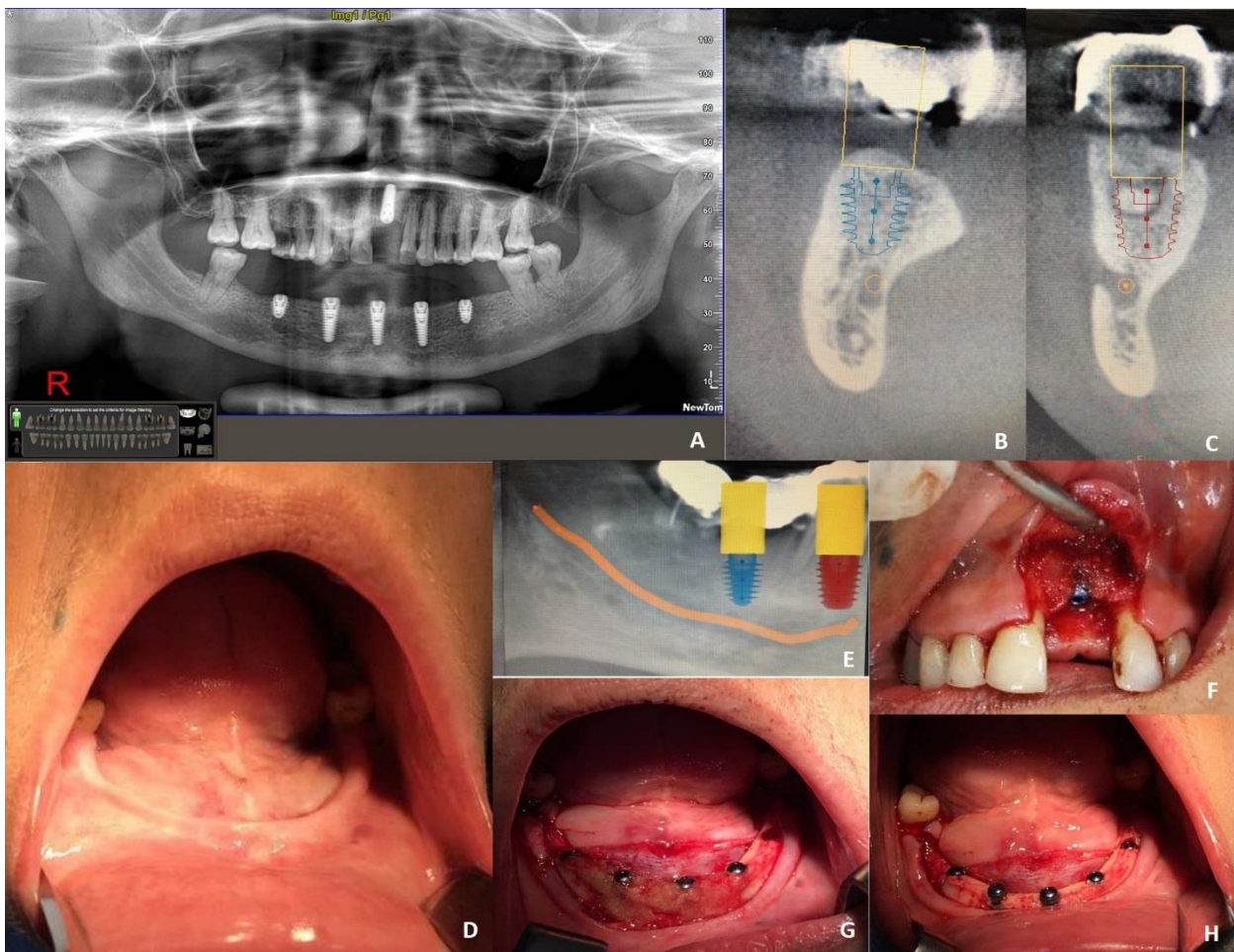
Loss of natural teeth results in both esthetic and functional deficits as the age of the patient advances. This leads to significant reduction in the patient's quality of life and self-image perception. Therefore, offering the correct treatment options to the patients losing their teeth either due to extraction or as a natural physiologic process is an important aspect of comprehensive patient treatment. In today's dental practice many published papers suggest the application of implants in the management of partially edentulous patients which can serve as abutments for either single crowns or fixed partial denture<sup>[1, 2]</sup>. There are numerous studies using a combination of implants and removable prosthesis<sup>[3]</sup>. However, a combination of implants and fixed prosthesis was found to be difficult to implement<sup>[4, 5]</sup>. These contraindications can be based on either the patient's medical condition or surgical concerns such as close proximity of the sinus floor or mandibular nerve<sup>[6]</sup>. Rehabilitation of patients with missing lateral posterior teeth and moderate to severe bone loss, presents one of the most complex treatment modalities due to shift in the sinus floor position, hindering the replacement with fixed prosthesis i.e., implants. Sinus floor augmentation with wide range of biomaterials and bone replacement grafts using various techniques presents a challenging treatment option in such conditions<sup>[7-9]</sup>.

### Case series

The case series shows different types of cases with unilateral and bilateral, maxillary and mandibular edentulous area which were treated with multiple implants to achieve occlusal rehabilitation. Case 1 shows patient with edentulous right lower region of jaw treated with four implants and porcelain fixed to metal crown. (Figure 1-A, B, C). Case 2 shows patient with bilateral edentulous maxillary posteriors treated with four implants bilaterally two on each side with porcelain fixed with metal crowns. (Figure 1-D, E). Case 3 shows patient with unilateral edentulous mandibular posterior region treated with two implants on each side with porcelain fixed with metal crowns. (Figure 1-F, G, H). Case 4 shows patient with an edentulous area in maxillary anterior region and edentulous mandibular arch except 37, 38 and 48. An implant in the maxillary anterior region and 5 implants in the mandibular anterior and posterior region bilateral region is placed and porcelain fused to metal bridge was placed. (Figure 2- A-H).



**Fig 1:** A: Mandibular Implants Right Side, B: Prosthesis Placed, C: Occlusion View, D: Maxillary Implant Placed, E: Prosthesis Placed, F: Mandibular Implants Left Side, G: Prosthesis Placed, H: Occlusion View



**Fig 2:** A: OPG After Implant Placement, B&C: CBCT View of single Tooth, D: PRE-Operative edentulous ridge, E: CBCT Showing IAN Canal, F: Maxillary implant, G: Mandibular Implant, H: Implant With Healing Cap

**Conclusion**

Implant supported fixed restorations can serve as an excellent treatment modality for edentulous patients. The prosthetic therapeutic success requires a detailed pre-surgical analysis based on prosthodontically driven implant position, judicious selection of prosthetic materials, prosthesis design and proper maintenance with a rational understanding of patient expectations and limitations.

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