



**AESTHETICS AND IMMEDIATE PARTIAL DENTURE: A CASE  
REPORT**

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**ABSTRACT**

Aesthetics has become one of the most important reasons for seeking dental treatment. Aesthetics is of prime concern while replacement of maxillary and mandibular anterior teeth. Missing anterior teeth or edentulous space not only affects one's appearance but also one's self confidence. In this case report a 45 year old patient was reluctant to get his anterior maxillary teeth extracted for fear of edentulous period.

To overcome this problem it was decided to provide him an immediate partial denture after he underwent extraction of the teeth. Immediate partial denture is the treatment of choice to allay the fear of being edentulous after extraction especially in case of anterior region.

**KEYWORDS:** Aesthetics, Immediate partial denture, edentulous.

**INTRODUCTION**

In today's fashion conscious population aesthetics plays a very important role. Oral health and dentition plays a very important part in aesthetics. With economic development, education and awareness more and more people belong to different socio-economic strata are seeking dental treatment for aesthetic reason. Anterior teeth or dentition affect aesthetics the most. Therefore people are extremely concerned aesthetically when extraction of anterior teeth is inevitable. In conventional treatment plan a patient has to wait for 20 to 25 days (depending upon case) for socket healing after extraction of tooth for denture placement. In

today's scenario no patient is willing to be aesthetically compromised for such a long duration. This problem can be overcome by providing immediate partial denture.

Immediate partial denture is defined as “any removable dental prosthesis fabricated for placement immediately following the removal of a natural tooth/teeth”.<sup>[1]</sup> Although immediate partial denture can replace 1-16 teeth in either the maxillary or the mandibular arch or in both arches, however the need for replacement of missing tooth is more in anterior tooth where aesthetics is of prime concern.<sup>[2]</sup> In cases when rehabilitations are to be done with removable partial prostheses, the recommended temporary dentures are generally fabricated of acrylic resin, using stain-less steel wires to provide the required retention.<sup>[3]</sup>

### **Advantages<sup>[1,3]</sup>**

The immediate denture has some advantages when compared to normal healing (without a temporary prosthesis) and later fabrication of a conventional denture. They are as follows.

- (a) Diminishing the magnitude of alveolar bone resorption during the first 3 to 4 months after tooth extraction, the period when this phenomenon occurs more intensively;
- (b) Protecting wound healing from oral environment aggressions and promoting better healing;
- (c) Facilitating the patient's social life by enhancing aesthetic appearance;
- (d) Preventing muscle collapse; enabling better mastication function,
- (e) Allowing the artificial teeth to be set up in identical positions to those of the remaining teeth
- (f) May result in reduced residual ridge resorption and also promotes better ridge form.

### **Disadvantages<sup>[1]</sup>**

Some of the disadvantages associated with immediate denture are as follows:

- (a) The lack of stability resulting in the patient feeling insecure,
- (b) Discomfort after insertion and trauma to the surgical site, difficulties with insertion, especially after a long surgical procedure
- (c) Aesthetics jeopardized by the appearance of metal clips, and
- (d) Increased treatment cost as the immediate denture has to be relined or remade after few months.

### **Contraindication<sup>[4]</sup>**

- (a) Patients who have undergone head- and- neck radiotherapy

- (b) Patients with bleeding disorders or impaired wound healing.
- (c) Patients with cysts, abscesses or those requiring extensive surgical removal of bone
- (d) Patients with psychological disorders or diminished mental capacities.

### **CASE REPORT**

45 yr old civilian employee reported to dental centre with the chief complains of poor aesthetic due to his front teeth. According to the patient he had no problem other than the fact that the present dentition was affecting his appearance, aesthetics, speech and mastication to some extent [Fig 1]. He was not undergoing treatment for the fear of being edentulous for 1 to 1<sup>1/2</sup> month. To overcome this problem and after oral examination it was decide to provide the patient with immediate partial denture to maintain his aesthetic.

### **Clinical Procedure**

Before extraction impression of both maxillary and mandibular arch were made using irreversible hydrocolloid impression paste (Zelgan, Dentsply, India). Cast was prepared from the impression using gypsum type III (Dental Stone). The three anterior teeth on the cast were removed and the space on the cast rounded off so as to resemble as that of the extracted socket. The shape and size of the artificial teeth selected was based on the shape and size of the canines present on the maxillary arch. The occlusal level and bucco-palatal placement of artificial teeth in the edentulous space was done in relation to that of mandibular anterior teeth. Every effort was made to place the artificial tooth as aesthetically as possible. A conventional removable partial denture was fabricated using heat cure resin.

After this under the influence of Local anaesthesia the anterior tooth were extracted with minimal damage to the tooth socket with the aim to preserve as much of alveolar bone as possible. The socket was thoroughly cleaned and sutures placed to minimize trauma and bleeding to the extracted site [Fig 2].

After this the immediate denture was inserted in the mouth and occlusion was verified. Patient was enquired about any discomfort with the denture [Fig 3]. After this the denture was removed and the fitting surface was cleaned and a soft liner applied to the fitting surface so as to act tissue conditioner and also to act as cushion in the extracted region to prevent any form of traumatic injury to the unhealed tissue.

Patient was recalled after 24hrs of the procedure for examination. He was apparently asymptomatic and relatively happy with his appearance and aesthetics [Fig 4].

**Instruction to the patient**<sup>[5]</sup>

Apart from the regular post extraction instructions certain specific instructions in relation to immediate denture given included.

- (a) Keep head up for first few hours and gentle biting pressure on the denture.
- (b) Not to remove the denture for the first 24 hrs but was instructed to remove it on subsequent nights.
- (c) For the first week the denture has to be removed for 4 to 5 times every day and rinse the mouth with warm saline water.
- (d) If any sore spots or traumatic ulcerations are found report to the clinic for adjustment.





**Figure Legends**

## **DISCUSSION**

Improvement in the interim denture procedure in the past decade has been one of the significant advancements in prosthodontics practice.<sup>[6]</sup> Immediate dentures act as splints which help in controlling bleeding, promote rapid healing and protect against trauma from the tongue, food or teeth, if they are present in the opposing arch.<sup>[7]</sup>

The biggest advantage of the immediate denture is that there is no edentulous period and a person can continue with his normal activities. Immediate partial denture is a very satisfying treatment for both patients and dentist. Dentists find satisfaction in providing acceptable treatment to the patient while patients are satisfied as their aesthetics are not compromised.<sup>[1]</sup> In this treatment patients aesthetics or appearance is not hampered, there is no major change in the dietary habit, there is continued muscular support and it avoids embarrassment for the patient to appear in public without teeth. The technique of fabrication of immediate partial

denture is practical, economically feasible, less laboratory work & material required and can be accomplished in a single appointment.<sup>[2]</sup>

## CONCLUSION

Immediate partial denture is an excellent treatment option for aesthetic conscious patients especially in cases where extraction of anterior tooth is inevitable. IPD can be used as short term measure till the healing of underlying soft tissue and bone takes place. It can be followed by a definitive treatment plan like fixed partial denture or implants. *IPD can also be a treatment option for population residing in remote and interior geographical areas where dentist visit is irregular and no laboratory work is possible. In such scenario, it can be carried out in a planned manner wherein impression is taken on the first visit and subsequently extraction and RPD can be placed in next visit. IPD can be an excellent and very satisfying treatment option if carried out in a planned and methodological manner.*

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