

Immediate Natural Tooth Pontic- A Case Report

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Abstract: Sudden tooth loss in the anterior region can be due to trauma, periodontal disease or endodontic failure. The loss of anterior teeth can be psychologically and socially damaging to the patient. Despite a wide range of treatment options available, traumatized teeth may be inevitably lost on certain occasions. This paper describes the immediate replacement of incisors using a composite resin with the natural tooth crown as pontic. This immediate provisional restoration provides exact repositioning of the coronal part of the extracted tooth in its original intraoral 3-dimensional position. This chair side technique does not require laboratory involvement.

Key words: composite, esthetic, interim restoration, natural tooth pontic

I. Introduction

Tooth loss in esthetic region because of trauma, advanced periodontal disease, root resorption or failed endodontic treatment is very challenging and needs immediate attention.(1) An immediate replacement following loss of anterior teeth is essential in order to avoid aesthetic, masticatory, and phonetic difficulties, and to maintain the edentulous space.[1-3]

Using natural tooth as a pontic offers the benefits of being in right size, shape and colour. When the crown of the tooth is in satisfactory condition, it can be temporarily bonded to the adjacent teeth with light cured restorative material. [4]

The purpose of this case report is to demonstrate utilisation of the clinical crown of periodontal involved mobile anterior teeth as a natural teeth pontic. This provides a long term functional and esthetic provisional outcome.

II. Case Report

A 45-year-old male patient reported to the department of Prosthodontics; with complain of mobile maxillary right central incisor and left lateral incisor. On clinical examination, probing depth of 6 mm, grade III mobility, class IV gingival recession with maxillary right central incisor and left lateral incisor. The patient was diagnosed to have chronic generalised periodontitis. (Fig-1)

A preoperative radiograph and photographs were taken. Radiographic examinations revealed severe bone loss with maxillary right central incisor and left lateral incisor. He was advised to undergo periodontal therapy. On visual examination, the crown presented the same colour, shape and translucency of the adjacent central incisor. The patient's periodontal health was assessed to be poor.

Considering poor prognosis with maxillary right central incisor and left lateral incisor after periodontal therapy, treatment plan was made to extract maxillary right central incisor and left lateral incisor under local anaesthesia. After extraction of maxillary right central incisor and left lateral incisor it is used as a natural teeth pontic and it is splinted it to the adjacent teeth using composite resin.

Clinical Procedure:

Maxillary right central incisor and left lateral incisor were extracted under local anaesthesia and pressure was applied to the extraction site with gauze for 30 minute to control the bleeding. (Fig.2&Fig.3) The length of the natural tooth pontic was determined by measuring the distance from incisal edge of central incisor to the extraction site with periodontal probe. 2mm additional length was added to the pontic so that after healing and resorption it would touch the gingival tissue. The root was separated from the crown with a carborundum disc and contoured with a flame shaped bur. Pulp was extirpated and the root canal was filled with a composite resin, and the gingival aspect of the tooth was smoothed and shaped to be rounded.

A modified ridge lap design was given to the natural tooth pontic which gives esthetically emerging profile and facilitate proper oral hygiene

Intracoronary round 0.001 braided stainless steel wire was embedded into this preparation and bonded with composite, which increased the retention of the tooth pontic. (Fig-4)

This was then bonded to the adjacent teeth using light cure composites and oral hygiene instructions were given to the patient. The patient was recalled after one week for evaluation. (Fig-5 & Fig-6)

III. Discussion

Replacement of missing anterior tooth using a natural tooth pontic technique is an intermediary restoration and may not be used as permanent restoration for long term. This technique cannot be used for every patient and some important factors should be considered before performing such restorations which among them are: patient's bite, interfering parafunctional habits, inadequate occlusal clearance space for reinforced fiber or orthodontic wire-composite resin bonding, inability to maintain isolation of field during bonding procedures, primary dentition and high esthetic expectations of patient, but this technique also has some advantages like: good aesthetic results, preservation of natural crown structure, no laboratory work required, reduced psychological impact on the patient, this technique is reversible and allows other restorative options to be evaluated, micro-resiliency of pontic allows stimulation of underlying tissue and avoids excessive post extraction ridge resorption.[5-7]

IV. Conclusion

The concept of immediate natural tooth pontic replacement is surely a viable treatment option and promises an excellent transient aesthetic solution for a lost tooth as well as enables good preparation of the extraction site for future prosthetic replacement.

References

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Photographs And Illustrations

Fig-1 preoperative intraoral view



Fig-2 extraction of maxillary right lateral incisor and left central incisor



Fig- 3 extracted teeth maxillary right lateral incisor and left central incisor



Fig-4 Braided wire cure with composite within the recess groove

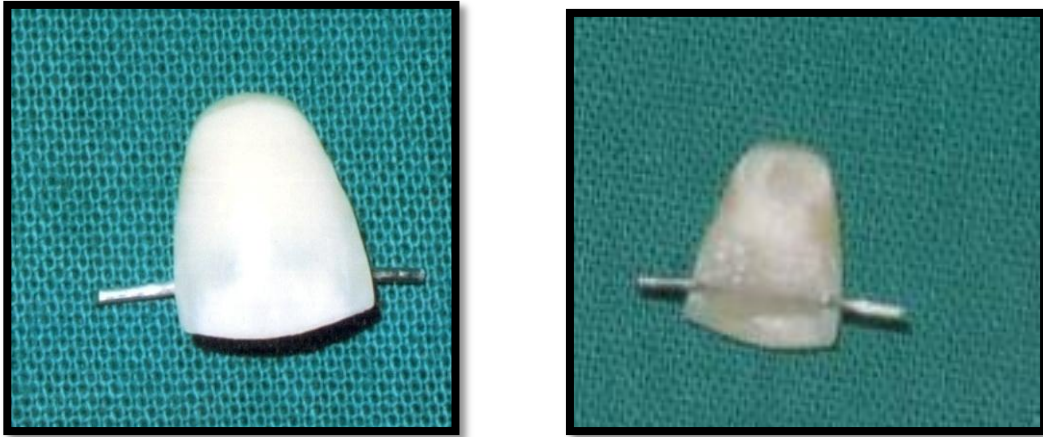


Fig -5 Palatal view immediately after splinting



Fig -6 Post operative intra oral view

