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**CASE STUDY**

# A TEMPORARY BUT EFFECTIVE NATURAL TOOTH PROSTHESIS

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**ABSTRACT**

Tooth loss and tooth mobility in the region of asthetics can be of great concert for the patient. The causes for tooth mobility in this region can be many, periapical pathology, bone loss, trauma etc. In certain cases extraction is the only solution, which is not acceptable to the patient. In such cases the natural tooth pontic technique is applicable. The concept of splinting is applied along with the use of natural tooth as a pontic, in the same region from where it was extracted. This Case series highlights the use of Natural tooth pontic as it is economic, fast, and easy to use chairside technique with the added benefits of periodontal stabilization.



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## INTRODUCTION

An immediate placement of tooth loss in the anterior region is essential in order to avoid asthetics, masticatory and phonetic difficulties and to maintain the edentulous space (Safirstein *et al*., 2001; Daly CG Use of Patient's natural crown as the pontic in composite resin-retained temporary bridge, 1983). Periodontally weekened tooth often drift to a position that is esthetically unpleasant as well as functionally unstable. (Gauri Srinidhi and Surya Raghavendra, 2014) The altered forces acting on the teeth worsen the migration. Previous attempts at chairside tooth replacement involved the use of pontic derived from extracted tooth, acrylic resin dentures teeth with or without lingual wire reinforcements and resin composites (Kermanshah and Motevasselian, 2010). Placement of an immediate and indirect periodontal, prosthetic splint has been reported frequently. This article describes a casein which the periodontally hopeless teeth where extracted, and the edentulous space replaced using the extracted tooth itself and splinted to the neighboring teeth with fiber reinforced bondable resin.

### Case reports

A 40 year old female patient reported with a painful and grade III mobile mandibular right and leftcental incisors. The tooth had to undergo extraction for pain relief and infection control and also due to inadequate periodontal support. Pain relief and asthetic appearance were the two main considerations of the patient.

### Treatment Plan

Patient was adviced to undergo supra and subgingival scaling and called for a follow up 2 week later. Patient showed good compliance with oral hygiene instructions and the periodontal tissue had responded well to the phase1 therapy. The Mandibular Right and Left Central Incisors showed a Hopeless prognosis thus was considered for a natural tooth pontic. Patient was explained the procedure in detail and consent of the patient was taken.

### Clinical Procedure

The Right and Left Mandibular Central incisors was extracted under local anesthesia. The extraction was uneventful. Pressure pack was given at the extraction site. Root canal therapy for the extracted tooth was done by the Crown down technique and the canal obturated with GuttaPercha points in vitro. Tooth was then restored using composite. The adjacent teeth in the arch where assessed and the region from mandibular right canine to mandibular left canine were selected for splinting. The mandibular right central incisor was then altered (modified ridge lap type pontic) at the root apex to establish easy sanitation of that area and placed in arch in its extraction

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socket. The mandibular central incisor hence acts as a pontic and is splinted to the adjacent teeth. The teeth from the mandibular right canine to the mandibular left canine were splinted using the Ribond™Reinforced ribbon (3mm) bonded with light cure composite resin. The occlusal clearance of the pontic was then checked and the patient given maintainance instructions.

**Figure 1. Lower anterior central incisors, grade III mobility, Front View**

**Figure 2. Lower anterior central incisors, grade III mobility. Occlusal View**

**Figure 3. Lower anterior central incisors, grade III mobility. Lingual View**

**Figure 4. IOPA of Lower anterior central incisors**

**Figure 5. Post Extraction of Lower anterior central incisors, grade III mobility, Front View**

**Figure 6. Post Extraction of Lower anterior central incisors, grade III mobility, Occlusal view of extraction socket**

**Figure 7. Root canal therapy done on extracted teeth**

**Figure 8. Extracted, root canal treated teeth altered to fit the vacant gap in the mouth, bonded together**

**Figure 9. Modified teeth bonded in the vacant space in the mouth, in alignment with the adjacent teeth, Occlusal View**

**Figure 10. Lingual View**

**Figure 11. Front View, post treatment**

## DISCUSSION

Provisional splinting is indicated for a limited time period. They provide information as to whether teeth stabilization will have benefits before planning comprehensive treatments. Examples include ligature wires, night guards and interim fixed prosthesis, composite resin splint. Definative splints are placed only after completion of periodontal therapy and achievement of occlusal stability. They are intended to increase functional stability and improve esthetics on a long term basis. (Kini *et al*., 2011) Replacement of missing anterior teeth using a natural tooth pontic is an intermediate restoration and may not be used as a 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 the patient, but this technique also has some advantages like: good esthetics, 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 (Immediate natural tooth pontic, 2014; Stein, 1998; Yilidrium and Edelhoff, 2002)

### Conclusion

The concept of Natural tooth pontic is considered an excellent option for tooth replacement in the astheticzone even if as a provisional option. The technique being cost effective, easy and patient accepted adds to its benefits. The asthetics as well as the periodontal health can be effectively maintained. However patient selection, patient motivation levels, plaque control levels and correct tooth alignment in the arch must be carefully considered to achieve best results.

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