

Reunion of Pearly whites - A Case Report

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Abstract

Introduction: Sudden tooth loss in the anterior esthetic region can be due to trauma, periodontal disease or endodontic failure and can be psychologically and socially damaging to the patient. Despite a wide range of treatment options available, traumatized teeth may be inevitably lost.

Aim and Objective: This case report describes the management of a case with extensive root resorption using natural tooth crown as pontic bonded by using light cure composites.

Materials and Method: Mandibular left lateral incisor formed in to natural tooth pontic used as replacement bonded to adjacent teeth by light cure composite.

Result: Natural tooth pontic proved to give satisfactory results as it was of right size, shape and colour can be obtained at chairside without laboratory technique.

Conclusion: This allows repositioning of the coronal part of the extracted tooth in its original intraoral 3-dimensional position related to adjacent teeth.

Keywords: Esthetic, Natural tooth pontic, Composite.

Introduction

Esthetics has become an increasingly important topic in modern society. The loss of one or more teeth in the esthetic zone not only affects the appearance but also the phonetics. Tooth loss may be because of trauma, advanced periodontal disease, root resorption or failed endodontic treatment. In most cases of internal/external resorption, the destruction occurs within the radicular confines and the clinical crown remains unaffected. Replacement of missing tooth is essential in order to avoid aesthetic, masticatory, and phonetic difficulties, and to maintain the edentulous space.⁽¹⁻³⁾ It can be treated by removable prosthesis, tooth-supported prosthesis or implant-supported prosthesis.

Advantage of using natural tooth as a pontic is that a pontic of right size, shape and colour can be obtained at chairside without laboratory technique.⁽⁴⁾ When the crown of the tooth is in satisfactory condition, it can be used as a natural tooth pontic which can be temporarily bonded to the adjacent teeth with light cured restorative material.⁽⁵⁾

Case Report

A 30-year-old female patient reported to the outpatient department of Periodontology, Subharti Dental College and Hospital, Meerut with chief complaint of mobile mandibular right lateral incisor. On clinical examination, there was probing depth of 3 mm and grade II mobility in relation to mandibular right lateral incisor (Fig. 1). Patient could not recall any history of trauma.



Fig. 1

Preoperative intra oral periapical (IOPA) radiograph were taken. Radiographic examinations revealed extensive root resorption in relation to mandibular right lateral incisor (Fig. 2). 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 good.



Fig. 2

Considering poor prognosis with mandibular right lateral incisor, treatment plan was made to extract mandibular right lateral incisor under local anaesthesia. After extraction of mandibular right lateral incisor it was used as a natural tooth pontic and was splinted to the adjacent teeth using composite resin.

Materials and Method

Mandibular left lateral incisor was extracted under local anaesthesia and pressure was applied to the extraction site with gauze for 30 minute to control the bleeding. Patient was then recalled after one week. Patient reported after one week and there was uneventful healing at extraction site (Fig. 3).



Fig. 3

Till then pontic was prepared by extirpating pulp, smoothening the rough margins and doing retrograde filling using light cured composite and additional length of 2 mm was added to the pontic so that after healing and resorption it would touch the gingival tissue. The gingival aspect of the tooth was smoothed and a modified ridge lap design was given to the natural tooth pontic which gives esthetic profile and facilitate proper oral hygiene. A thin groove using round diamond bur was made just above the cingulum to make room for the round 28 gauze braided stainless steel wire which was embedded into this preparation and bonded with composite, to increase the retention of the tooth pontic (Fig. 4).



Fig. 4

Tooth pontic was kept in normal saline to maintain its hydration. After one week when patient reported the tooth pontic was checked and adjusted for occlusal height in relation to adjacent teeth and then bonded to the adjacent teeth serving as abutment using light cure composite (Fig. 5). Oral hygiene instructions were given to the patient and the patient was recalled after one week for evaluation.



Fig. 5

Discussion

At present, there are various treatment procedure available for the replacement of permanent anterior teeth that are lost because of trauma. Although removable appliances or prosthesis seem to be one suitable option but patient compliance is generally a major problem. Prefabricated acrylic teeth used as a pontic bonded to the adjacent teeth can present challenges with regard to matching colour, size, and shape. This is not in the case of natural tooth pontic as it offers the benefits of being the right in size, shape, and colour. Moreover, natural tooth pontic holds an additional benefit of the positive psychological value to the patient in using his or her natural tooth which is not in the case of using prefabricated acrylic teeth.⁽²⁾

Placement of an implant supported clinical crown in the esthetic zone is a technique sensitive procedure that often span several months. In the present case, the patient wanted immediate aesthetic replacement at reduced treatment cost so natural tooth pontic came out to be the best option.

Conclusion

Using natural tooth pontic allows restoration of original esthetics and phonetics and thus relieves the apprehension of the patient which is caused by the sudden loss of an anterior tooth. Natural tooth pontic has ideal contour and position, matches the adjacent teeth in terms of colour and surface texture, and properly supports the soft tissue architecture.

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