ORIGINAL RESEARCH PAPER
Volume-6 | Issue-12 | December-2017 | ISSN No 2277 - 8179 | IF : 4.176 | IC Value : 93.98
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

NATURAL TOOTH: AS A PONTIC- CASE REPORT.

Dental Science

Dr Atul Sattur — Professor and HOD, Department of Multispeciality, SDM College of Dental Sciences, Dharwad.

Dr Priyanka Mahale — Lecturer, Department of Multispeciality, SDM College of Dental Sciences, Dharwad.

Dr Ambrapali.S, Lecturer — Department of Multispeciality, SDM College of Dental Sciences, Dharwad.

ABSTRACT

In modern dentistry aesthetics plays a major role. Loss of anterior teeth compromise the esthetics and function which in turn affects the social life and confidence level of the patient. This case report describes use of natural tooth as a pontic to immediately restore the esthetics and phonetics with a minimal cost.

KEYWORDS

Pontic, Natural tooth, Aesthetics.

Introduction:

In the era of modern dentistry with increasing demands of patient for restoring an aesthetic area is challenging to a dentist. Loss of anterior tooth can occur for various reasons like dental trauma, severe periodontitis, root resorption or endodontic failure. Missing teeth compromise the esthetics, phonetics, appearance, which in turn affects the social life of the patient.

Whenever a missing tooth structure is to be replaced, the dentist should consider numerous factors, including natural tooth preservation, minimal intervention, aesthetics and cost.[1] Conventional solutions to this problem have included the fabrication of a provisional restoration using adjacent teeth as abutments removable temporary acrylic prosthesis and resin bonded bridges.[2-4] Irrespective of the permanent treatment options available, patients usually refuse delayed replacement and desire an immediate alternative solution in the post-extraction phase with the primary aim to restore the esthetics.[5]

Natural tooth pontic (NTP) suitably modified and bonded to adjacent teeth enables proper healing in the area without compromising the anterior esthetic demands of the patient. NTP offers excellent color, shape, and size match and thus enhances the psychological and social acceptability of the patient with a minimal cost involved. A variety of periodontal splint materials such as the multi-flex orthodontic wires, steel meshes, glass or fiber splint etc can be used to splint the pontic to the adjacent stable abutments via composite resin.[6-9]

This case report describes using natural tooth as a pontic to immediately restore the esthetics and phonetics with a minimal cost.

Case Report:

A 23 year old young female patient was reported to the Department of Multispecialty, SDM Dental College, Dharwad, with a complain of broken and discoloured teeth in maxillary region. No significant medical history was found. Dental history revealed episode of trauma 6 years back in the maxillary anterior region. On clinical examination maxillary right central incisor was discoloured and carious tooth (Fig 1). Vitality test showed no response. Radiographs revealed periapical radiolucency with 11. Both clinical and radiographic examination revealed questionable prognosis due to loss of tooth structure on 3 sides of tooth (labial, mesial, palatal) and hence extraction of 11 was indicated.

Treatment modality included replacement of the extracted tooth. Because of the esthetic concern of the patient about the missing tooth after extraction we decided to go ahead with alternate treatment plan. The following treatment plan was decided.

Step 1: All the caries was excavated which extended till the pulp chamber. BMP was done and canal was irrigated (Fig 2). The canal was packed and condensed with GIC (GC type IX). Shade selection was done followed with crown build up using composite (3M A2 shade) (Fig 3).

Step 2: Putty index was made using polyvinyl siloxane material covering 11,12,21. Putty index was used for reorientation of the tooth during temporization.

Step 3: Anesthesia was achieved by administering infra orbital and naso palatine nerve block with local anesthetic solution(Lignox 2%). Atruamatic extraction was done and sutures were placed with knot on buccal aspect for better approximation of tissues (Fig 4,5). Teflon tape was placed over the sutures to prevent its interference during bonding procedures.

Step 4: Extracted tooth was sliced at the CEJ. The crown part was modified into ovate pontic and contoured according to the gingival tissues to give an emergence profile.

Step 5: The pontic was stabilized in the extraction socket using putty index which was prepared before extraction. The pontic was bonded with the adjacent teeth using Flowable composite along the proximal sides (Fig 6). The pontic was splinted using 21 guaze ortho wire on the palatal surface of 11,12, 13,21,22,23. The Teflon tape was removed and patient was recalled after 1 week for suture removal.

Step 6: Suture removal was done after 1 week and irrigated. Patient was again recalled after 1 month for evaluation of gingival tissue and permanent restoration.

Figure 1

Figure 2

Figure 3

Figure 4

Figure 5

Figure 6

Discussion:

Loss of anterior teeth results in psychological and social trauma to the patient, in order to prevent this various treatment options are available like immediate implant placement and removable prosthesis. Because of low socio economic status not all patient can afford implant treatment. Removable prosthesis can be one of the treatment option but often result in poor esthetics due to clasp used for retention and also prone for fracture. Whereas, fixed acid etch bridging provides various advantageous like improved esthetics easy to use and also avoids complicated laboratory procedures. [10-12]

In the present case, as patient was young and of low socio economic status, wanted immediate esthetic replacement with minimal treatment cost. Hence natural tooth was used as a pontic which fulfilled the patent criteria. The natural tooth was modified into ovate pontic to maintain gingival architecture and to give an emergence profile. Using natural tooth as a pontic enhances esthetic, function, phonetics and confidence of the patient.

Conclusion:

Natural tooth as a pontic can be used as an alternative treatment option in restoring esthethic area. This results in better patient acceptance, less time consuming and is cost effective.

References:

1. Purra A R, Mushtaq M. Aesthetic replacement of an anterior tooth using the natural tooth as a pontic; an innovative technique. Saudi Dent J 2013;25:125-128.
2. Daly CG. Use of patients natural crown as the pontic in a composite resin-retained temporary bridge. Aust Dent J 1983;28:301-303.
3. Ashley M, Holden V. an immediate adhesive bridge using the natural tooth. Br Dent J 1998;184:18-20.
4. Safirstein JJ, Owens BM, Swords RL. The resin retained natural tooth pontic: a transitional esthetic solution. J Tenn Dent Assoc 2001;8:31-33.
5. Bhabdari S, Chaturvedi R. Immediate natural tooth pontic: a viable yet temporary prosthetic solution: a patient reported outcome. Indian J Dent Res 2012;23:59-63.
6. Parolia A, Shenoy KM, Thomas MS, Mohan M. Use of a natural tooth crown as a pontic following cervical root fracture: a case report. Aust Endod J 2010;36:35-38.
7. Stoller NH, Green PA. A comparison of a composite restorative material and wire ligation as methods of stabilizing excessively mobile anterior teeth. J Periodontol 1981;52:451-454.
8. Friskopp J, Bromlof F, Soder PO. Fiber glass splints. J Periodontol 1979;50:193-196.
9. Stumpel LJ 3rd . The Natural Tooth Pontic; Simplified. J Calif Dent Assoc 2004;32:257-260.
10. Fahl N Jr. Restoration of the maxillary arch utilizing a composite resin build up and a fiber frame work. Pract Periodontics Aesthet Dent 1998;10:363-367.
11. Smidt A. Esthetic provisional replacement of a single anterior tooth during the implant healing phase: a clinical report. J Prosthet Dent 2002;6:598-602.
12. Belli S, Ozer F. A simple method for single anterior tooth replacement. J Adhes Dent 2000;2:67-70.