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Replacement of Mandibular Anterior Tooth with "Riding Pontic" A Case-Report

Dr. LakshmanaRao. Bathala[1], Dr. Parul Singhal[2], Dr.Vikas Gupta[3], Dr. Vikas Punia[4], Dr. Rajesh Naidu. T[5]

[1]Department of Prosthodontics, Lenora Institute of Dental Sciences, Rajahmundry, Andhra Pradesh, India
[2]Department of Prosthodontics, RUHS, College of Dental Sciences, Jaipur (Govt. Dental College), Rajasthan, India
[3]Department of Orthodontics, Institute of Dental Sciences, Sehora, Jaipur, Rajasthan, India
[4]Department of Prosthodontics, Darshan Dental College, Udaipur, Rajasthan, India
[5]Private Practitioner, Kurnool, Andhra Pradesh, India

ABSTRACT

With the ever changing and ever growing developments in the field of materials and techniques, new vistas are open to us to provide our patients with better treatment modalities. A new and simple technique for the patients who desire an esthetic tooth replacement before any definitive Prosthodontic and/or orthodontic treatment is described in this case-report. In this technique, a provisional prosthesis is fabricated, using an acrylic tooth, resin cement and an orthodontic wire which is also cost effective and less time consuming. This provisional prosthesis may be used where aesthetics is a prime concern and a definitive treatment has to be delayed for some period of time.

Keywords: Riding Pontic, Provisional Pontic, Resin Cement, An Orthodontic wire.

I. INTRODUCTION

A beautiful smile at the end of the prosthetic treatment is a primary concern for all the patients, but most are also concerned with appearance while undergoing treatment. Many conditions like agenesis, extractions or trauma may lead to loss of anterior teeth and compromises esthetics.

A chair-side temporary prosthesis made an easy option for the treatment of a missing anterior tooth while maintaining the space for the definitive procedure[1]. To fulfil the need of esthetics and to boost up the morale of the patient, a simple method of fabrication of a provisional fixed prosthesis is presented in this case report.

II. METHODS AND MATERIAL

CASE HISTORY

A 20 year old female patient reported to the Department of Prosthodontics, Rama dental college and Hospital &Research Centre Kanpur, with a chief complaint of a gap between her lower front teeth. She had no history of any tooth extraction and/or orthodontic treatment (Fig-1).

On clinical and radiographic examination, it was revealed that both her mandibular central incisors were congenitally missing, leaving a gap of a single tooth in between and rotated lateral incisors(Fig-2).

Keeping in mind the esthetics of the patient, the orthodontic treatment was preferred over the fixed prosthetic treatment, which included the correction of rotated lateral incisors and closing the gap while maintaining the midline in place. As per the patient's convenience, the orthodontic treatment was planned after 6 months by the decisions of the concerned orthodontists. So, a provisional prosthesis using an acrylic tooth, fiber reinforced composite and an orthodontic wire of 21 gauges, was given to the patient.

PROCEDURE:

1. The acrylic tooth was selected according to the colour of the adjacent natural teeth.
2. The mesio distal width and the height of the tooth was determined and adjusted.
3. The stainless steel orthodontic wire of 21 gauges was intertwined.
4. Cotton rolls were placed on the lingual and labial vestibule to keep the area dry.
5. The intertwined stainless steel orthodontic wire was bonded on the lingual aspect of 32, 33 and 42, 43 incisal to the cingulum using fiber reinforced composite resin(Fig-5).
6. Then the acrylic tooth was stabilized and bonded to the wire using the same composite (Fig-3), (Fig-4).

III. RESULT AND DISCUSSION

The introduction of the chair-side provisional prosthesis using an acrylic tooth, composite resin, and a stainless steel orthodontic wire of gauges 21 has provided the dental profession with the opportunity to fabricate and deliver adhesive, esthetic and metal free tooth replacements.[2]

This technique has also provided the benefit of dependable space maintenance for anterior teeth prior to the orthodontic treatment. Other indications for such type of service include: a fixed replacement following tooth loss from trauma until complete healing occurs, a fixed tooth replacement in medically compromised patients who cannot sit for extended period of time, patients who cannot be administered local anaesthesia, periodontally compromised abutments, a fixed space maintainer following orthodontic movement, and a fixed provisional during the post implant healing prior to loading.[3]

Figure-1 (Pretreatment-Extra Oral)

Figure-2 (Pretreatment- Intra Oral)

Figure-3 (Post Treatment-Extra Oral)

Figure-4 (Post Treatment-Intra Oral)

Figure-5 (Post Treatment-Lingual View)

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