

Endodontic Management Of Traumatized Anterior Teeth – Interdisciplinary Approach: Case Report

Abstract

An esthetic restoration is not limited to restore teeth but it also includes the gingival unit and its interface with the teeth involved. Orthodontic extrusion is one of best clinical method to restore fractured anterior teeth at cervical level. The cases reports focuses on the objectives of restoration of traumatized anterior teeth with multidisciplinary approach, new design of post and core and restoration of such teeth.

Key Words

Trauma, Tooth fracture, Modified post, Orthodontic extrusion

Introduction

Orthodontic extrusion/ forced eruption is a well documented clinical method for altering the relation between a non restorable tooth and its attachment apparatus, elevating sound tooth material from within the alveolar socket^{[1],[2],[3]}. It has some advantages over surgical crown lengthening, which is less conservative considering the sacrifice of supporting bone and the negative change in the length of the clinical crowns of the tooth and its neighbors^{[4],[5]}.

Case Report - 1

A 20 year boy reported to the Department of Conservative and Endodontics, 6 months after trauma to anterior teeth due to road side accident leading to its fracture.

Clinical Examination

Crown fractures were seen with 21, 22,31,32,41. Ellis class III fracture of 21, 22. Incomplete treatment of lower anterior teeth was found. Access opening along with crown preparation seen in relation to 31, 32, 41(Fig. 1a). Ellis class II fracture in relation to 42. Vitality test of 11 was performed and reported to show delayed response. There was no mobility of any of the teeth. IOPA in relation to 21, 22 (Fig. 1b) showed incomplete obturation and 41,31,32 showed no obturation. On the basis of clinical and radiographic findings following treatment plan was made and patients consent was taken,

Endodontic therapy for 11,31,32,41. Re RCT for 21,22. Modified Post and core for Orthodontic extrusion of 21 (Fig. 1c). Composite build up for 42. All ceramic crown in relation to 21,22,31,32,41 (Fig. 1 d, e).



Figure 1a : Pre Operative - Intraoral Photograph;

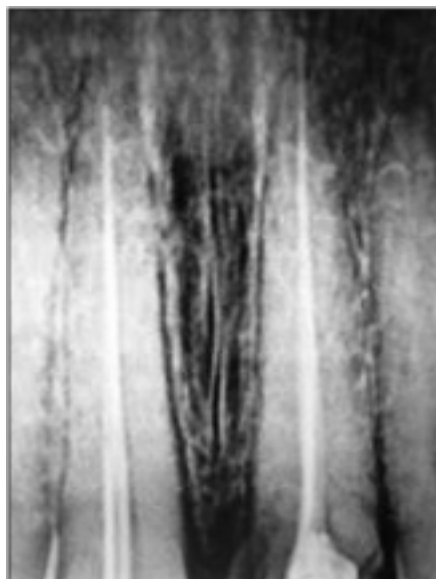


Figure 1b : IOPA Of 21,22

¹ Hada Singh Yajuvender

² Wilson Suvil

³ Khular Dev Kapil

⁴ Arshad Fazil

¹ Senior Lecturer, Dept. of Conservative & Endodontics

² Senior Lecturer, Dept. of Ortho & Dentofacial Orthopedics

³ Principal and HOD, Dept. of Conservative & Endodontics

⁴ Senior Lecturer, Dept. of Oral & Maxillofacial Surgery
Daswani Dental College and Research Centre, Kota

Address For Correspondence:

Dr. Khular Dev Kapil, Principal and HOD
Dept. of Conservative and Endodontics,
Daswani Dental College and Research Centre, Kota.
Ph: 09810809890

Email : khullar_kapil@yahoo.com

Submission : 29th August 2012

Accepted : 6th September 2013

Quick Response Code



Figure 1c : Modified Post Used During Orthodontic Extrusion



Figure 1d : Post Operative Intraoral Photograph



Figure 1e : Post Operative Radiograph

Case Report - 2

An 18 year boy reported to the Department of Conservative and Endodontics, 2 years after trauma to maxillary tooth -22 due to road side accident leading to its fracture and intrusion.

Clinical Examination

Ellis class II fracture at the middle third in relation to 22 (**Fig. 2a**). The gingival around the intruded tooth was normal and well contoured. There was no mobility of any of the teeth. Vitality test was done for 22 and it showed no response. IOPA Radiograph showed calcified root canal in relation to 22 (**Fig. 2b**). On the basis of clinical and radiographic findings following treatment plan was made, Orthodontic extrusion of 22 (**Fig. 2c**) and then Composite build up was done. The treatment plan and time required for the treatment was explained to the patients consent was taken. Post operative photograph showed an esthetic smile (**Fig. 2d**).

Conclusion

We report these cases of Interdisciplinary approach between orthodontist and restorative dentist. The careful integration of multiple specialists suggests the possibility of optimal results with high predictability^{[6],[7],[8]}.

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Figure 2a : Pre Operative - Intraoral Photograph

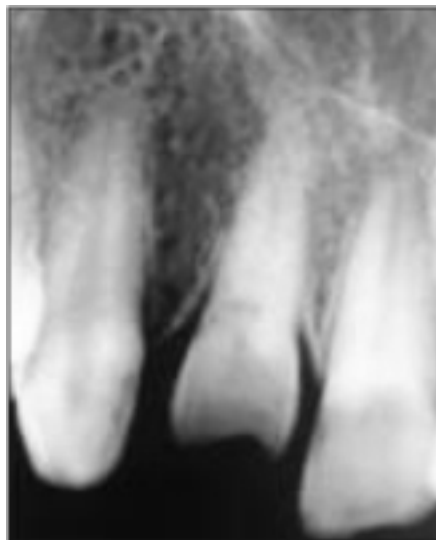


Figure 2b : Pre Operative - IOPA Of 22



Figure 2c : Orthodontic Extrusion

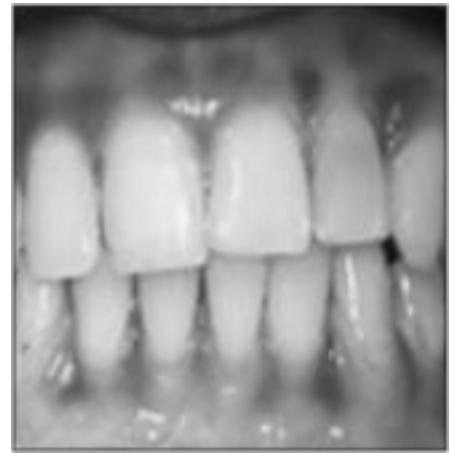


Figure 2d : Post Operative - Intraoral Photograph.

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Source of Support : Nil, Conflict of Interest : None declared