

Int Poster J Dent Oral Med 2012, Vol 14 No 4, Poster 629

Prosthetic Reincarnation

Restoring teeth in god's own way

Language: English

Authors:

Mukesh Hasija, MDS,
King George Medical University, Faculty of Dental Sciences, New Delhi, India
Assist. Prof. Himanshu Shekhawat, MDS,
Kalka Dental College, Meerut, Uttar Pradesh, India
Prof. K. K. Wadhvani, MDS,
King George Medical College, Lucknow, Uttar Pradesh, India
Assist. Prof. Babita Meena, MDS,
Jamia Milia Islamia University, New Delhi, India
Deepri Wadhwa, pg student,
Dr. Ziauddin Ahmad Dental College, Aligarh Muslim University, Aligarh, India

Date/Event/Venue:

9- 12 december 2010
25th FODI & 18th IES national conference, Chennai
India

Poster Award

1st table top presentation

Introduction

Fragment reattachment using natural teeth is a technique known as "Biological Restoration" and provides excellent results regarding surface smoothness, esthetics. Several authors have suggested the use of natural teeth fragments as an efficient method for restoring fractured anterior teeth. The combination of dental fragments, adhesives, and restorative materials that are commercially available today provides a good functional and esthetic result, connecting these properties within an alternative treatment in the restoration of extensively damaged fractured teeth.



Fig. 1: Fractured extracted central incisor



Fig. 2: Mesio-distal sections of extracted teeth for biological post and core preparation

Objectives

The present in vitro report describes the effort aimed at esthetic and functional rehabilitation of severely mutilated central incisors using homogenous biological fragments obtained from extracted natural teeth.

Material and Methods

The post space was prepared in freshly extracted maxillary central incisor leaving 4 to 6 mm gutta percha in apical third. Biological post core were prepared from extracted human canines with same oriented shape, thickness and length of dentine post as prepared post space. The coronal portions of core were prepared to a height of 3 mm (coronal to proximal CEJ) and width of 3 mm. The cementation of post core assembly was done using dual cure cement. Biological crown portions were prepared by hollowing both internally as well as on the cervical portion of extracted sterilized crown; leaving approximately 1 mm dentine with the enamel, from preselected and autoclaved homogenous extracted teeth. The shaped biological crown was cemented and finishing polishing was done to give a final esthetic result.

Results

Adaptation of crown and post was finally checked clinically and radiographically.

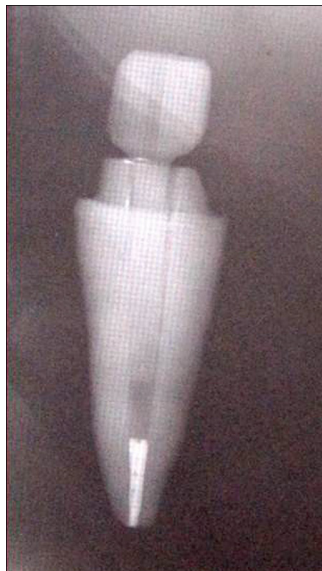


Fig. 3: Endodontic preparation and post space preparation

Fig. 4a: Cemented biological post core

Fig. 4b: Cemented biological post core



Fig. 5a-c: Biological crown adjusted and cemented

Conclusions

Within the limitations, it seems that biological post core and crown offer excellent esthetic, functional advantages to achieve the morphofunctional restoration of extensively damaged teeth.

Literature

1. Chosack A, Eildeman E. Rehabilitation of fractured incisor using the patient's natural crown. Case report. J Dent Child 1964; 31: 19-21.
2. Grewal N, Reeshu S. Biological restorations: an alternative esthetic treatment for restoration of severely mutilated primary anterior teeth. Jaypee's International Journal of Clinical Pediatric Dentistry, September-December 2008;1:42-47.

This Poster was submitted by Mukesh Hasija, MDS.

Correspondence address:

Mukesh Hasija, MDS

King George Medical University, Faculty of Dental Sciences

a-2/42, Ashirwad Appartment

Paschim Vihar, New Delhi

India

Poster Faksimile:

PROSTHETIC REINCARNATION

Biological Post and Crown

Fragment reattachment using natural teeth is a technique known as "Biological Restoration" and provides excellent results regarding surface smoothness, esthetics, and the maintenance of the incisal guide in dental structures that cause physiological wear. The biological restorations are an alternative technique for reconstruction of extensively damaged teeth that provides highly functional and esthetic outcomes.

Biological Laminates

RESTORING TOOTH IN GOD'S OWN WAY

The following study describes a clinical case performed by means of "Biological Restoration" using homogeneous fragment bonding associated with biological posts, both obtained from natural, extracted teeth, aimed at the esthetic and functional reconstruction of extensively damaged and/or fractured central maxillary incisors.

ADVANTAGES:

- (1) Does not promote dentin stress,
- (2) Preserves the internal dentin walls of the root canal,
- (3) Presents total biocompatibility and adapts to conduct configuration, favoring greater tooth strength and greater retention of these posts as compared to premanufactured posts,
- (4) Presents resilience comparable to the original tooth,
- (5) Offers excellent adhesion to the tooth structure and composite resin and at a low cost.