

Restoration of Endodontically Treated Maxillary Right Central Incisor with Cast Post & Core- Clinical Case Report

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Abstract:

The longevity of endodontically involved teeth has been greatly enhanced by continuing developments made in endodontic therapy and restorative procedures. These devices vary from a conventional custom cast post and core to one visit techniques, using commercially available prefabricated post systems. The use of custom-made posts is usually accomplished in canals that have a non-circular cross section or extreme taper. Enlarging canals to a pre-formed post may lead to root weakening and perforation. The quick fabrication and exact fitting of custom-made posts is the aim of clinicians. After the post space has been prepared, the remaining coronal tooth structure is reduced for the extracoronary restoration as though it was undamaged. If a porcelain fused to metal restoration is planned, a facial shoulder and lingual chamfer finish line is prepared giving adequate reduction labially for good esthetics.

Keywords: Custom made posts, Extreme taper, Coronal tooth structure

Introduction:

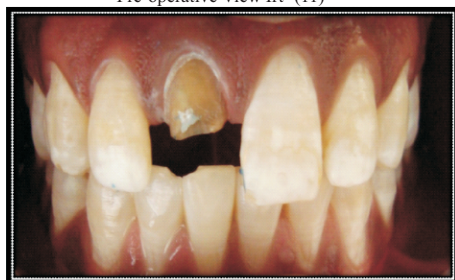
Post endodontic restoration plays an important role in the success of root canal treated teeth. Many in-vivo studies have highlighted endodontic treatment as the major etiological factor for tooth fracture. Restoring non vital teeth represents a major challenge for clinicians. Endodontically treated teeth are more prone to fracture than vital teeth, particularly in the posteriors where the stress generated by normal functional forces can lead to fracture of undermined tooth structure. Cast post-and-core has been the most commonly used post type.

Case-Report:

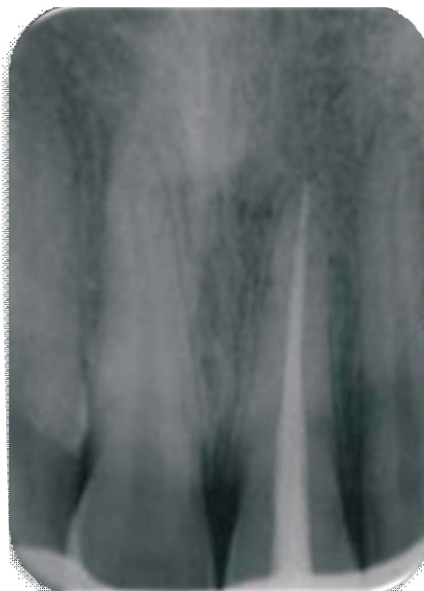
A 34 year old patient reported to the department of conservative dentistry and endodontics in Divya Jyoti Dental College with the chief complain of pain with respect to upper front tooth region specifically Irt to 11. Upon clinical examination it was revealed that the tooth was fractured and the incisal cervical dimension of the tooth was reduced and was very fragile with reduced contact Irt to 11. Medical history of the patient was recorded and was totally non-significant with no prevalence and presence of any medical disorders.



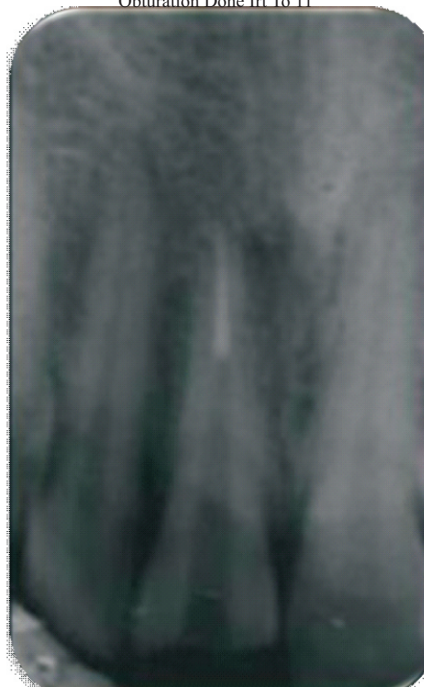
Pre-operative View Irt- (11)



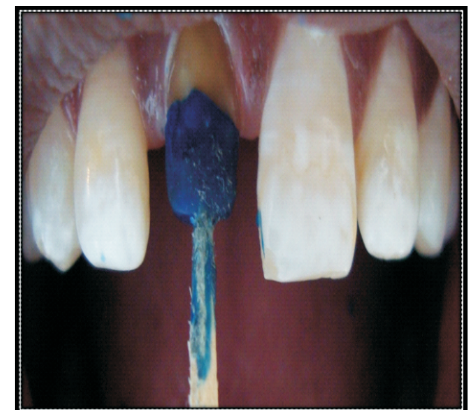
Extracoronary Tooth Preparation Irt (11)



Obturation Done Irt To 11



Post Space Preparation Irt-(11)



Wax Pattern Fabrication Irt-(11)



Cast Post And Core Placement Irt- (11)



Post Placement Irt- (11)

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Post-operative Irt-(11)

Discussion:

Utilization of contemporary post and core systems has facilitated the esthetic restoration of endodontically treated teeth. The use of custom-made posts is usually accomplished in canals that have a non-circular cross section or extreme

taper. However, the periodontal and endodontic status, root length and histological structures of the endodontically treated teeth must be considered in order to achieve successful restoration following endodontic treatment. The use of bondable materials allows the practitioner to unify the structure and morphology of root systems to provide creative solutions to challenges here to meet.

Conclusion:

The aesthetic rehabilitation of traumatised tooth poses tough challenge to the dentist. Custom cast post offers advantages in form of higher strength, precise fit with minimal luting surface and inherent anti rotation mechanism. In this case report, considering the age and aesthetic concerns of the patient we devised a treatment plan which was cost effective, had long lasting results and provided desirable

aesthetics

References

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