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POST AND CORE MANAGEMENT OF MAXILLARY RIGHT LATERAL INCISOR: A CASE REPORT

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Abstract:

Post is commonly used to provide adequate support and retention for the restoration of endodontically treated teeth. Following in the wake of changing treatment concepts, the material market for posts has undergone a complete makeover. Ranging from the era of wooden posts to metal posts and more recently, carbon fiber, glass fiber, and ceramic posts, the material and design options are infinite. The longevity of endodontically involved teeth has been greatly enhanced by continuing developments made in endodontic therapy and restorative procedures. It has been reported that a large number of endodontically treated teeth are restored to their original function with the use of intraradicular devices.. The selection of post design is important, because it may have an influence on the longevity of the tooth

Keywords: Post systems,Core materials.

Introduction

Endodontically treated teeth generally have a good prognosis.Long term success of these teeth depends upon the skilled integration of endodontic and restorative procedures.Endodontically treated teeth are more often lost because of reconstructive failure.Post endodontic restoration is necessary to prevent fracture of the remaining tooth structure and to prevent the reinfection of the root canal.In certain cases, a post endodontic restoration is insufficient to build up the core,therefore in such cases the use of a post and core treatment is recommended. As, post provides sufficient amount of strength for the root structure to withstand the forces acting on core which thereby helps in coronal tooth structure.[1]

Therefore,the aim of this case report is to illustrate a case with severe loss of coronal tooth structure using post and core treatment followed by crown placement.

CASE REPORT

A 24-year-old male patient reported to the Department of Conservative Dentistry and Endodontics with the chief complaint of broken tooth in the upper right front tooth region. On radiographic examination, the tooth revealed a proper root canal treated tooth (fig.1). The treatment plan was explained to the patient followed by post and core build up. After this, post space preparation was done in the canal using paeso reamers size 1,2,3,4 leaving 4-5mm apical gutta percha in the canal space. This was followed by cementation of prefabricated post in the space and the core build up. Then, tooth preparation was done and impression was taken using putty. Then the patient was recalled after 7 days for crwon cementation.(FIG.2,3,4,5)

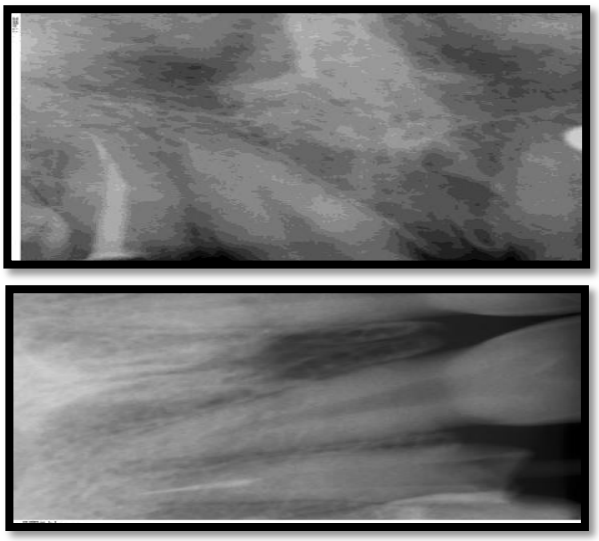

Figure 1: Preoperative Radiograph FIG2-POST SPACE PREPARED WITH FIBREPOST PLACED

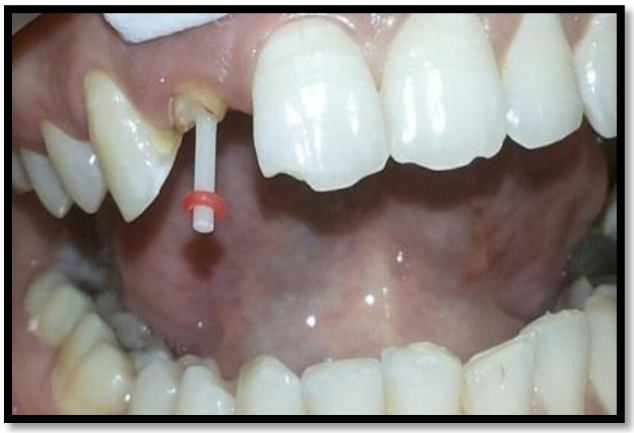

Figure 3:FIBREPOST PLACED

Figure 4: core build up

Figure 5: POST OPERATIVE PHOTOGRAPH WITH CROWN CEMENTATION

DISCUSSION

This case report emphasizes that the preservation of tooth structure should be the first aim of an endodontist. Following the endodontic treatment, it is necessary to restore the original morphology and function of the tooth which is not possible to achieve only by restoration of endodontically treated teeth. Proper restoration begins with understanding of the physical and biomechanical properties and anatomy of the tooth.

If basic principles are followed, the post systems can be successfully used. After selection of the post system, it is the choice of core materials and final restoration on which the longevity of the treated tooth depends. Posts should be inserted with gentle pressure otherwise root fracture may occur. It should be noted that no adjustment should be made after the cementation immediately otherwise the bur can cause fracture of the set cement which will ultimately lead to untimely fracture.[1]

CONCLUSION

The main function of post is to retain the core, if insufficient tooth structure is present as they do not strengthen the tooth, hence posts should not be used habitually. Though many new materials are available with their indications for use, but long term evaluations are needed.

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