COMMENTARY

RESTORATION OF AN INTRUDED MAXILLARY CENTRAL INCISOR WITH A UNIQUELY DESIGNED DOWEL AND CORE RESTORATION: A CASE REPORT

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Authors Polat and Tacir are to be congratulated for their case report of the innovative restoration of a fractured and intruded maxillary left central incisor and the edentulous space created by the loss of the avulsed maxillary right central incisor in a 14-year-old female patient. Maintaining acceptable esthetics of the maxillary anterior teeth for adolescent patients is critical for psychological and social integration. This specific patient was injured in an automobile accident, and the restorative solution provided both esthetics and function, maintained supporting bone and soft tissues, and preserved space until growth was complete and a more definitive implant-supported restoration could be provided.

The fabrication of a custom cast-metal dowel with two cores was an unusual but innovative solution to restoring the fractured intruded tooth and also the missing adjacent central incisor. The adhesive cementation of the rigid dowel may have been a critical component of the restorative service, as recent published and unpublished data have demonstrated that bonding rigid dowels and cores to endodontically treated teeth results in dramatically improved fatigue performance compared with cemented dowels and bonded fiber posts.[1,2]

The metal-ceramic crowns used to replace the coronal tooth structure, coupled with the judicious use of pink ceramic in the cervical area, provided an excellent esthetic result in a very difficult situation.

It should be mentioned that the long-term prognosis for the tooth/restoration complex in this situation is severely compromised. For a patient of this age, 4 to 6 years of service are essential before implant therapy can be commenced. There is a reasonable chance that the unique therapy accomplished here can meet that goal, but it is unlikely that this could be considered predictable, long-term therapy. Factors that compromise the prognosis include the relatively small amount of remaining tooth structure, which is now carrying the occlusal load for two teeth, and the angle of the remaining root resulting in nonaxial loading. Although the subject was not addressed in the case report, it would seem judicious to provide the patient with a maxillary occlusal nightguard to protect the restoration and remaining root from nocturnal parafunctional activity.

In summary, the treatment provided for this young patient was unique and ingenious. It provided a conservative, economical, and esthetic solution to a very unusual and difficult clinical situation. The therapy should provide the patient both function and esthetics and maintain the architecture of the anterior maxilla so that more definitive therapy can be completed at a later date.

REFERENCES

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