

MANAGEMENT OF MID ROOT FRACTURE OF MAXILLARY CENTRAL INCISOR

INTRODUCTION

Mid-root fractures occur most frequently in the upper anterior teeth due to their position in the arch. This case report describes the management and 2 years follow up of maxillary central incisors(#11) with horizontal root fracture. Four types of conservative endodontic treatment that have been commonly described are (i) cleansing and gutta percha (GP) or Mineral trioxide aggregate (MTA) filling of the root canal of the coronal fragment only; (ii) cleansing and filling of the root canal in both fragments; (iii) cleansing and filling of the root canal of the coronal fragment and surgical removal of the apical fragment; and (iv) treatment of the root canal with calcium hydroxide followed by filling



TREATMENT PROTOCOL

- Repositioning of displaced coronal segments
- Fixation of teeth by canine to canine splinting
- Cleaning of root canal above fracture line along with calcium hydroxide dressings
- After 4 weeks # 11 was obturated with MTA above fracture line
- For # 21 conventional RCT and post & core was done
- Radiographs were taken at regular intervals.
- Mobility checked on each visit

RESULTS & FOLLOW UP



After 3months
No pain
Grade-I mobility



After 1 year
No pain
No Mobility



After 2years
No pain
No Mobility

CONCLUSION

Mid-root fractures have long been considered to have hopeless prognosis because of poor understanding of the biologic concept of such fracture and lack of availability of biocompatible materials. Availability of biocompatible materials MTA have put forth varied treatment options for clinicians in the management of mid root fractures. A long-term follow-up is required to check for any possible pathological alterations. Follow-up of this case after two years showed promising results with clinically pleasing aesthetics and radiographic healing with calcified tissue, the fractured line discernible but fragments well stabilized.