POSTERS:

Management of a Large Cyst-like Endodontic Periapical lesion Associated with Mature Necrotic Teeth Using Different Treatment Protocols

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Abstract

Introduction: Regenerative endodontic therapy has been successfully used to treat the immature permanent necrotic teeth; it has also been used to treat mature necrotic teeth. The purpose of this case report is to describe the successful treatment of three traumatized mandibular anterior teeth associated with a large cyst-like endodontic periapical lesion, using three different treatment protocols: traditional nonsurgical root canal therapy with gutta-percha root-filling, MTA root-filling, and regenerative endodontic therapy in terms of resolution of apical periodontitis and regression of clinical signs and symptoms.
Methods: A 32-year-old female gave a history of trauma to her mandibular anterior region several years previously. Subsequently to truama, a large periapical radiolucent lesion developed in the periapical area of #23, #24, #25, and #26. Pulp tests with cold, heat, and electric current showed that #23, #25,and #26were nonvital and #24 was vital. Both #25 and #26 were treated with nonsurgical root canal therapy. Tooth #26 was filled with gutta-percha and #25 was with mineral trioxide aggregate. Tooth #23 was treated with regenerative endodontic procedure.
Results: At 14 months, 32 months, and 60 months of follow-up examination using Cone Beam CT, the periapical radiolucent lesion showed progressive,although not complete healing.
Conclusion: Based on present case report,regenerative endodontic therapy is as effective as nonsurgical root canal therapy of mature necrotic teeth with apical periodontitis in terms of resolution of apical periodontitis and regression of clinical signs and symptoms. It may be better to fill the disinfected canal with the host's vital tissue rather than with non-vital foreign materials because vital tissue is inherited with immune defense mechanisms and root canal filling materials do not have any biological defense capability against foreign invaders such as bacteria.

Key words
Apical periodontits, mature necrotic teeth, nonsurgical root canal therapy, vital tissue, regenerative endodontic therapy.