Dentistry 2019, Volume 9
DOI: 10.4172/2161-1122-C4-075

Clinical and radiographic comparison of revascularization and apexification of immature teeth

Dawoud A and Abuhemila N
University of Tanta, Egypt

Introduction & Aim: It is no doubt that management of traumatic immature permanent teeth poses a great challenge to the clinician as incorrect treatment at the time of trauma can lead to further worsening of the situation and development of periapical lesion and cessation of tooth development. Conventional root canal treatment is difficult to perform and the outcome is uncertain. Traditionally, the apexification procedure has consisted of multiple and long-term applications of calcium hydroxide [Ca (OH)2] to create an apical barrier to aid the obturation. Recently, artificial apical barriers such as those made with Mineral Trioxide Aggregate (MTA) have been used in teeth with necrotic pulps and open apices. More recently, procedures referred to as regenerative endodontics have received much attention as an option for these teeth. The aim of this presented article is to compare clinical and radiographic CBCT (Cone Beam CT) between MTA apexification and revascularization in immature traumatic permanent incisors teeth.

Method: The sample of the presented study was consisted of 30 children (7-9 years old) had irreversible pulpitis or necrotic immature permanent upper incisors and divided into two groups. Study group 15 teeth were treated with pulp revascularization and positive control group 15 teeth were treated with MTA apexification. Clinical examinations, standard periapical X-ray and CBCT were done to tested groups before and after follow up period 18 months.

Result: It was found that clinical success and healing of the periapical lesion have been occurred in all cases. The statistical analysis of results showed that there was no significant difference between the two tested groups in the root development but there was significant difference of CBCT revascularization group over the apexification one.

Conclusion: Revascularization had comparable, superior outcomes of CBCT with MTA apexification procedure but not at clinical and radiographic outcomes.

dawood19752004@yahoo.com