The Effect of The Age and Apical Diameter on Regeneration of Pulp Tissue (Clinical Study)

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The God of heaven will give us success. We his servants will start rebuilding.

My words can"t describe your love for us our lord……

…….. Thanks for yesterday ……

….……Thanks for today……

…….Thanks for tomorrow……..

Thanks for your help in this thesis and thanks for everything you did for me.

Dedication

To my dearest father …..

….. To my lovely mother

To my sweetest sister …..

…..To my greatest friends

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The dental pulp is the source of vitalization, strength, nutrition to the teeth so their loss may weaken the teeth rendering them susceptible to infection, fracture and subsequent tooth loss. The pulp diseases may be pathological or traumatic or systemic. One of the goals of the endodontic treatment is keeping the dentition in a physiological and functional state for maintaining oral and systemic health. Trauma to the developing dentition can result in pulp necrosis and incomplete root formation which can lead to premature loss of the permenant teeth where complete dentin, cementum formation ceases.

Pulpal necrosis in immature tooth with an open apex has devastating consequences for the patient and present a distinctive challenge for the dentist. The treatment of the affected developing teeth is prognostic where endodontic treatment of the immature non vital teeth with open apices with or without apical pathosis presents several treatment challenging. Mechanical cleaning and shaping of such teeth with blunderbuss or just open apices are very diffcult if not impossible. The thin fragile lateral walls can be fractured during mechanical filling. Also the obturation of such canals is very diffcult and easily be overfilled where there is no apical stop.

Endodontic management of such teeth include apical surgery and retrograde filling, calcium hydroxide induced apical apexification, more recently placement of the apical plug of MTA or gutta percha obturation. Few acceptable results have been achieved throught apexification by CaOH which has several disadvantages such as: i) It requires multiple visits during long period of time. ii) It depends on