An in-vitro Study to Evaluate the Bond Strength Difference between Glass Fiber Post and Fiber Reinforced Strip (Etched and Non Etched)

Thesis

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This thesis is dedicated to…

My mother, to my father my first word for their love and support, to my sister and brothers my first friends and to my husband for his encouragement and understanding.

And last but not least my beloved sons

Ahmed and Zeyad

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INTRODUCTION

The increase risk of biomechanical failure of the endodontically treated teeth could be related to the loss of a large part of the coronal tooth structure[١,٢], which may be due to decay as (early childhood caries) or dental trauma [٣,٤]. The general protocol for fractured, non-vital anterior permanent teeth involves root canal treatment followed by protective permanent restorations for the coronal structure. Special situations arise in young patients when the pulps of anterior teeth lose vitality with resultant arrested development of the roots.

The open and sometimes divergent apical morphology and weak root dentine walls make endodontic procedures challenging, and presents restorative problems. It is important to preserve these weakened teeth in young patients[٤].

In the majority of clinical situations, the placement of post serves protection of weakened tooth and adds additional retention for the coronal restoration.

Posts either prefabricated or custom made were traditionally made of metal and have been used in these situations to provide the necessary retention for the subsequent prosthodontic restoration. However their use resulted in complex combinations of materials (dentin,