بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

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بعض الوثائـــــق
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بالرسالة صفحات

لم ترد بالاصل

EFFECT OF DIFFERENT SURFACE TREATMENTS ON RETENTION AND MICROLEAKAGE OF FIBER-REINFORCED COMPOSITE POSTS

Thesis submitted to

The Faculty of Oral and Dental Medicine

Cairo University

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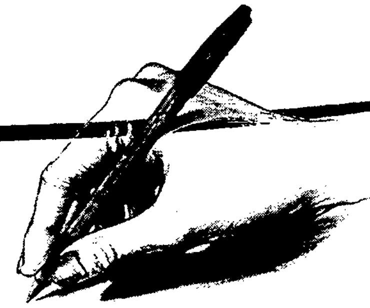

INTRODUCTION

Endodontically treated teeth are known to present a higher risk of biomechanical failure than vital teeth, as in most cases the remaining tooth structure will be less than in vital teeth because the most frequently occurring reason for endodontic treatment needs is deep caries. Additionally, further loss of tooth structure takes place during the preparation of the access cavity and canal preparation.

Posts are generally indicated to restore pulpless teeth, available prefabricated posts were traditionally made of metal, and their use resulted in complex combinations of materials (dentin, metal posts, cements, and core materials) with different degrees of stiffness[1].

The choice of an appropriate restoration for endodontically treated teeth is guided by strength and esthetics. Newer tooth-colored posts have improved the esthetics of teeth restored with posts and cores. [2]

Prefabricated fiber-reinforced composite (FRC) posts have been used since the beginning of the 90s. The use of fiber posts to restore teeth with excessive loss of coronal structure is gaining widespread acceptance with dental clinicians. The presence of fibers is a further advantage because fibers distribute stress on a wider surface area, remarkably increasing the load threshold at which the material begins to show micro-fractures. Among the properties of fiber-reinforced materials; high impact resistance, attenuation and softening of vibrations, shock absorption and increased fatigue resistance [3].

Several characteristics of these posts have contributed to their popularity. They have comparable elastic properties to dentin, inducing a stress field similar to that of natural tooth. This results in a reduction in