

شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلو

# بسم الله الرحمن الرحيم





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# جامعة عين شمس التوثيق الإلكتروني والميكروفيلم قسم

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# Effect of Different Materials of Primary Telescopic Crowns on The Frictional Fit of Pekkton Partial Denture Frameworks in Kennedy Class I

A thesis submitted to Faculty of Dentistry Ain-Shams University, for the partial fulfillment of the requirements for the Master's degree in Oral and Maxillofacial Prosthodontics.

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#### **Introduction**

Loss of posterior teeth may affect the neuromuscular stability of the mandible. Furthermore, reduced masticatory efficiency and loss of the vertical dimension of occlusion may occur in addition to poor aesthetics. Removable partial dentures (RPDs) are particularly indicated in Kennedy class I cases when there is a need for a simple and economic solution.

Conventional RPDs have some limitations as the metallic color of the clasps, irritation to the gingiva of the supporting teeth, inadequate mastication, poor patient satisfaction and reduced oral comfort.

Telescopic crown attachments (TCAs) have been successfully used in partially edentulous patients. TCAs consist of a primary telescopic crown cemented to a natural tooth abutment and an outer secondary telescopic crown attached to the RPD framework. This type of attachment provides retention, support, and stability with optimal hygiene for the RPD. (1)

With the emergence of CAD/CAM technology, telescopic crown attachments can be virtually designed and milled precisely to ensure a passive fit of the attachment parts and maximal function of the RDP. Digital technology decreases the number of visits, as well as produces accurate prosthesis.

Zirconia is one of the most crown materials used for dental crowns and attachments, because it is highly biocompatible, and the smooth surface reduces plaque accumulation. The material also promotes a healthy tissue response. (2)

Zirconia is suitable for patients with metal allergies or those who prefer metal-free restorations. The high translucent product of this material