Effect of Rigid Versus Resilient Retainers on the Abutment Anterior to a Posterior Modification Space of Kennedy Class II: Stress Analysis Study

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تأثير المثبتات الصلبة بالمقارنة مع المثبتات اللينة على السنة الأمامية الداعمة للتعديل الخلفي لحالات مجموعة كنيدي II: دراسة تحليل الإجهاد

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To My Dear Father

Beloved Mother

My Dear Husband

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List of Abbreviations

RPD	:	Removable partial denture.
DEBs	:	Distal extension bases.
VRHR	:	Vertical reciprocation horizontal retention.
Ti-Ni	:	Titanium-Nickel.
Co-Cr	:	Cobalt-chromium.
DF	:	Degrees of freedom
PDL	:	Periodontal ligament.
SD	:	Standard deviation.

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Introduction

Clasp retained removable partial dentures continue to be one of the most common treatment modalities for the greatest number of partially edentulous patients. However, improper biomechanical designing and construction of removable partial dentures (RPDs) may result in deletreous changes in the remaining oral structures.[1]

Since Preservation of the remaining tissues is considered the main objective of removable prosthodontic treatment, it thus seems necessary to rehabilitate edentulous patients with RPDs constructed on biomechanical bases and principles. For this reasons research and studies are continuously attempted to provide sound bases for RPD construction. This is actually more difficult with distal extension compared to bounded RPDS.[1,2,3]

Distal extension bases (DEBs) exhibit composite type of support gained from both the teeth and residual ridges. This leads to movement of the denture base under functional loading and transmission of stresses to the abutment teeth through clasps and other components. The result is thus resorption of the residual ridge and torque on abutment teeth.[4,5]

Several methods have been proposed to limit base movement and to distribute functional stresses between the