

1. Radiographic evaluation of the effect of two different types of attachments on abutments supporting partial over-dentures.

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Abstract:

Kennedy class I removable partial dentures present certain problems that makes it difficult to be designed successfully. The objective of the present study was to evaluate radiographically using the Digora system the effect of two different types of attachments on both the supporting structures of the terminal abutments and the residual alveolar ridge in partial overdenture cases. The attachments used were mechanical stud and magnetic attachments. Fourteen patients with Kennedy class I in the lower arch were included in this study and were divided into two equal groups; the first group received mechanical stud attachments, while the second group received magnetic attachments. Intra-oral direct digital radiographs were used to assess bone density and bone height changes of the mesial and distal sides of the terminal abutments and the residual alveolar ridge at both sides in both groups. A significant difference in bone density and bone height around the terminal abutments and the anterior and posterior residual ridge areas in both groups was revealed throughout the follow-up period. It can be concluded that magnetic attachments have less trauma to the supporting abutment roots compared to stud attachments used in this study.