

When we've to do something for those teeth, we often make a partial denture with simple crowns for abutments on them or extract.

However, a partial denture with clasps often makes the condition worse because the separate abutments will be easily loose because of the actions of the clasps as you know.

In that point of view, I think that Konus crowns and/or magnetic attachments can be one for the best options for the abutments of teeth with poor prognosis.

The stresses upon those teeth can be more vertical and a partial denture with them can be easily repaired if something happened.

011-3

Removable Partial Denture for Unilateral Edentulous Case

Hoon Cho*, Jung-Won Hwang, Jae-Jun Ryu, Sang-Wan Shin

Department of Dentistry, Korea University Guro Hospital, Seoul, Korea

When teeth including incisors remained only unilaterally in partially edentulous situation, designing a partial denture is so difficult that restorative dentists get a trouble in attaining the sufficient retention, support, stability and esthetics for the long term success.

The patient in the case has only one central incisor on the left side of the upper arch. Residual ridge was moderately absorbed and the periodontal support of remaining teeth were poor.

Major connector was designed to cover the entire palate to get the maximum support from the mucosa. We solved the dislodging movement of the denture and the fatigue of the direct retainers with the precise fitting indirect retainers and proximal plates. As the abutment for the partial denture is central incisor, we utilized the small, resilient, extracoronal attachment(Technoroach®, CM) as a major direct retainer.

Good result in the aspect of function and esthetics was achieved. This type of design would be suggested as one of the esthetic restorative options for the difficult partially edentulous situation.

Oral

011-4

Mechanical Properties of I-Bar Clasps in Clinical Use

Yuuji Sato*, K. Tsuga, Y. Abe, Y. Akagawa

Department of Removable Prosthodontics, Hiroshima University, Hiroshima, Japan

I-bar clasps are popular direct retainers for distal-extension removable partial dentures. However, science-based criteria on mechanically preferable shape of I-bar clasp is scarce. This study aimed to investigate the variation of factors of I-bar clasp shape used in partially edentulous patients, and to clarify the effect of the variation on stiffness and stress of I-bar clasps by finite element analysis. Factors of 23 I-bar clasps of 17 patients as thickness, width, taper, radius of curvature, length, and relation to oral structures were measured. A three-dimensional finite element model was made corresponded with each measured I-bar clasp with vertical and horizontal straight sections connected with a curved section. A concentrated load of 5 N was applied at the lowest point of the I-bar tip that contacted the abutment in the buccal portion, and maximal equivalent stress and stiffness of each clasp were evaluated. Values of the factors, stiffness, and maximum