COMMENTARY

ROTATIONAL PATH REMOVABLE PARTIAL DENTURE (RPD): CONSERVATIVE ESTHETIC TREATMENT OPTION FOR EDENTULOUS MANDIBLE ANTERIOR REGION: A CASE REPORT

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It was refreshing reading the article by Drs. Suh and Billy. Removable partial dentures (RPDs) do not seem to be the restorations that are currently in vogue. I am in complete agreement with the authors, who mention that there still remains a group of patients who, for medical, psychological, and financial reasons, are poor candidates for fixed prosthodontics. These patients can be restored to function with the use of RPDs. The rotational path RPD has the added advantage that it can restore esthetics as well as function. This type of prosthesis can effectively eliminate a visible buccal clasp arm and engage visible anterior undercuts to maintain retention. This is only possible with meticulous attention to detail, which is so nicely demonstrated in this article.

Patient selection and correct diagnosis are critical when deciding which type of prosthesis is appropriate. The patient selected for this case study had good oral hygiene and made an ideal patient to receive an RPD. It has been shown that with adequate oral hygiene, an RPD is an acceptable prosthesis, resulting in minimal damage to the abutment teeth.[1] The authors should be congratulated on their diagnostic ability, which in turn has guaranteed a successful outcome. The absence of modifications or multiple edentulous areas, the lack of lingually tilted teeth, the lack of mobility of the anterior abutment teeth, and a favorable arch shape made this Kennedy IV situation ideal for receiving a rotational path RPD.

In order to achieve optimal esthetics with a rotational path RPD, meticulous attention to detail must be performed. This article clearly demonstrates that a high level of attention was given to every step. In particular, surveying was performed by the dentist with the design of the definitive restoration in mind. The result is a retentive and esthetic prosthesis. Dr. Suh has taken great care to avoid even the most miniscule amount of volume change to the intaglio mesial guide plane contacting the mandibular canines.[2] The article also emphasizes the importance of communication with a competent laboratory for optimal results.

The use of composite resin for rests is controversial. In certain situations, the composite resin may not be able to hold up to the forces applied to it. The forces may cause shear fracture of the composite resin as well as differential wear against the hard cobalt chromium framework.[3] The in vitro article cited by Toth and colleagues[4] describes a load-to-failure test of the composite resin when used as rest for RPDs. Load-to-failure studies may not provide as much relevant clinical information with regard to failure, as a fatigue test would. The article by Toth and colleagues[4] only looked at one parameter in relation to failure of the composite resin. Other clinical parameters, including the differential wear of the composite resin against RPD components, need to be addressed before it can be recommended as a reliable material for long-term use as a support for rests. Toth and colleagues[4] concluded that "The use of bonded composite resin to prepare lingual rests in removable partial denture abutment teeth should not be advocated until all of the basic criteria are tested and found to be acceptable." The abutment teeth may drift out of the framework as a consequence. However, this is unlikely to happen to the patient presented in this article, as there is an intimate adaptation of the framework to the mandibular canines. In order to avoid this potential drawback, an alternative, but more costly, approach may be utilized. It is possible to bond with resin a heat-treated gold or etched base metal alloy rest to the lingual of the anterior abutment teeth. These are more likely to withstand harsh oral conditions.[5] Bonding to enamel and metal has excellent strength and predictability.[6,7] In addition, this is a biologically sound approach, as it is not necessary to remove tooth structure.

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In summary, the diagnostic, technical, and clinical steps have been performed to a very high standard and have been beautifully documented and coordinated. This elegant article can serve as a great resource when treating partially edentulous patients requiring a posterior-anterior rotational path RPD.

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