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Prosthetic rehabilitation with slide attachments and free-end saddle casted partial mandibular denture

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Introduction

Precision slide attachment could be successfully used as the retainer for RPD, providing beneficial axial loading. Regardless restorations opposed by a denture, where one single tooth on each side of the arch would be needed as a retainer, in the case where bony support of abutment could be compromised 3, or more abutment teeth have to be included in design on each side.

Objectives

The aim of this study is to present prosthetic rehabilitation of partially edentulous patient by mandibular cobalt-chrome partial denture with non-adjustable intracoronal slide attachments and upper CD.

Results

Case report. 5 anterior teeth of mandibular arch of the patient, 59 yrs., were prepared for MCC. Elastomeric impression (Oranwash L, Zhermack) was taken in customized tray, and poured than using a stone (Gipsogal, Galenika a.d.,Serbia). The model was placed on parallelometer (Heraeus CL-MF2000, Germany) and the path of insertion was determined. Wax patterns were completed on dies and precision attachment was held in a mandrel with wax built up to contact the attachment (Patrx Vario soft 3 VKS 1.7 Bredent, Germany). After investing and casting, metal castings of 3 splinted copings to the right side of arch and 2 splinted copings on left incisors abutments were placed back to working cast. The patrx was placed in the matrix housing, with care being taken to ensure the fully seated patrx (Patrx and yellow matrix Vario-Snap Bredent, Germany), and lingual extensions fitting on milled metal surfaces. After completion of MCC (Vita Germany), matrix was processed in metal framework (WisilM, Germany) of mandibular denture, and complete trial of metal components was carried out in the mouth of the patient, than. Functional impression of edentulous upper jaw was provided using paste (Zn-oxide Vikopres, Galenika) in custom tray (Palavit L, Galenika).Transferring face-bow (Artex) was positioned to provide transfer of working cast in articulator (Semi-adjustable Artex articulator, Germany). Jaw relationships were established in the mouth. After checking for aesthetic, denture teeth (Biogal, Galenika) were set up in wax on the articulated master model and tried in his mouth for fit and occlusion. The bilateral free-end saddle mandibular denture with milled MCC and upper acrylic CD were fitted in the mouth. Controls were taken 6 and 12 months after baseline to assess retention.



Fig. 1: 5 anterior lower teeth after preparation



Fig. 2: Combined silicone and zinc-oxide-eugenol paste impression of his mandible



Fig. 3: Patrix elements in matrix housing



Fig. 4: Metal framework attachments and MCC in the mouth



Fig. 5: Framework in position



Fig. 6: Patrix elements on MCC and metal framework with matrix housing

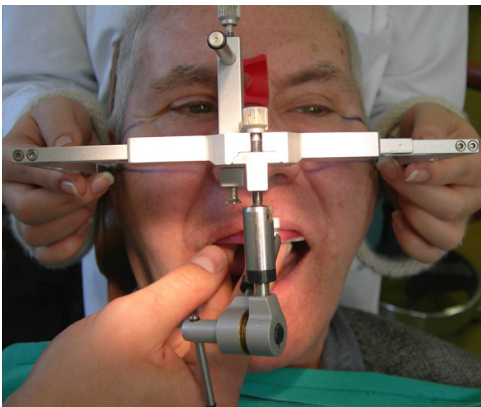


Fig. 7: Face-bow positioned towards reference points



Fig. 8: Face-bow towards center of rotation



Fig. 9: Occlusal rim on metal framework in the mouth



Fig. 10: Wax of occlusal rim and inner surfaces of crowns

Conclusions

Conclusion. Suitable orientation of slide attachments and fitting free-end saddle mandibular casted RPD, opposed by a CD, is very satisfactory prosthodontic approach in therapy and rehabilitation of partially edentulous patients.



Fig. 11: Relationship of jaws



Fig. 12: Situation after mounting of upper master cast into articulator and positioning of occlusal rims, subsequently



Fig. 13: Occlusal rims separately showing the positions of wax and metal-ceramic crown's surfaces



Fig. 14: Trial



Fig. 15: 12 months control

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Abbreviations

RPD – Removable Partial Denture
MCC – Metal-ceramic Crowns
CD – Complete Denture

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Poster Faksimile:

PROSTHETIC REHABILITATION WITH SLIDE ATTACHEMENTS AND FREE-END SADDLE CASTED PARTIAL MANDIBULAR DENTURE

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OBJECTIVE. The aim of this study is to present prosthetic rehabilitation of partially edentulous patient by mandibular cobalt-chrome partial denture with non-adjustable intracoronal slide attachments and complete upper denture.

MATERIALS AND METHODS. Case report. 5 anterior teeth of mandibular arch of the patient, 59 yrs., were prepared for metal-ceramic crowns (MCC). Impression (Oranwash L, Zhermack) was taken in customized tray, and poured then using a stone (Gipsogal, Galenika). The model was placed to parallelometer (Heraeus CL-MF2000, Germany). Wax patterns were completed on dies. Attachment was held in a mandrel with wax built up to contact the attachment (Patrx Vario soft 3 VKS 1.7 Bredent, Germany). The patrx was placed in matrix housing to ensure the fully seated patrx (Patrx and yellow matrix Vario-Snap Bredent, Germany), and lingual extensions fitting on milled metal surfaces. After completion of MCC (Vita Germany), matrix was processed in metal frame-work (Wisil M, Germany) of mandibular denture. Transferring face-bow (Artex) was positioned to provide transfer of working cast in articulator (Semi-adjustable Artex, Germany). Jaw relationships were established in the mouth. Artificial teeth (Biogal, Galenika) were set up in wax and than tried in his mouth.

RESULTS. The bilateral free-end saddle mandibular denture with milled MCC and complete upper acrylic denture were fitted in the mouth. Controls were provided for 6 and 12 months to assess retention and occlusion.

DISCUSSION AND CONCLUSION. Suitable orientation of slide attachments and fitting free-end saddle mandibular casted partial denture, Opposed by a complete denture, is very satisfactory prosthodontic approach in therapy and rehabilitation of partially edentulous patients.