

Project No. : 3598/2006

Comparative evaluation of two techniques in achieving balanced occlusion in complete dentures

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OBJECTIVES

The aim of this study was to compare complete dentures made by two techniques: with and without face-bow.

METHODOLOGY

Completely edentulous subjects with well formed ridges with class I jaw relation were selected for this study. Twenty such subjects were restored with two sets of complete dentures, fabricated by each of the two techniques undervaluation. After initial examination and the impression procedures the functional casts so obtained were duplicated with silicone. Casts obtained were separated into two groups, which were mounted on two different types of semi adjustable articulators. Casts in technique I were mounted using a face-bow in a Hanau H2 articulator (Hanau Eng. CO. Buffalo, USA). Casts in technique II were mounted without face-bow record in a Stratos 100 articulator, (Invoclar, Liechtenstein). Following articulation, teeth setting was carried out using the same types of teeth set (Ivostar-Gnathostar, Invoclor, Leichtenstein). There after all the dentures were processed in conventional manner.

RESULTS

In technique II, face-bow recording, mounting on the articulator in that particular position, gothic arch tracing, recording of centric and protrusive check records and programming of Hanau H2 articulator were avoided. Hence time taken in fabrication of complete denture with balanced occlusion in technique II was very less as compare to technique I.

RECOMMENDATIONS

One of the most important requirements for successful complete dentures is achieving balanced occlusion. Articulators reproduce patient's characteristics with more accuracy. Non adjustable articulators are easy to handle, but do not help in achieving balanced occlusion, resulting in prolong chair side time spent on occlusal adjustments. Therefore, semi adjustable articulators seem to present the most adequate effective tool for complete dentures. These articulators are easy to handle and allows in achieving a full balanced occlusion during mandibular excursions.