



Anterior Repositioning Splint in the Treatment of Temporomandibular Joints with Reciprocal Clicking

The anterior repositioning splint is widely used to treat temporomandibular joints with reciprocal clicking. The aim of this prospective study was to evaluate the effect of an anterior repositioning splint in the treatment of patients with reciprocal temporomandibular joint clicking.

Seventy patients referred because of pain and dysfunction in the masticatory system were selected for this study. In a random assignment, 24 patients were treated with an anterior repositioning splint, 23 with a flat occlusal splint, and 23 served as a control group.

The anterior repositioning splint, designed to keep the mandible in the anterior position and, thereby, eliminate reciprocal clicking, was placed on the maxillary teeth of the patients in the first group. This anterior position was maintained through inclines on the splint which allowed the mandibular teeth to occlude with the splint only in the anterior position. The flat occlusal splint for the second group was adjusted to maximal occlusal contact in centric relation and centric occlusion, to group contact in laterotrusion, and to anterior guidance on protrusion. The patients in the control group did not receive any treatment.

The anterior repositioning splint decreased joint pain at rest, during chewing, and during protrusion. Reciprocal clicking was eliminated and palpatory tenderness of the joint and muscles was reduced. This favorable effect was of short duration. The majority of the patients reported pain and clicking and demonstrated tenderness following removal of the splint after six weeks' treatment. The flat occlusal splint decreased joint tenderness but did not affect clicking or muscle tenderness. In the control group, the clicking remained and the frequency of muscle tenderness increased.

The results suggest that temporomandibular joints with reciprocal clicking can be treated successfully by positioning the mandible anteriorly. Since the symptoms returned when the splint was removed, it seems necessary to stabilize the mandible permanently in an anterior position, thereby maintaining the recaptured disk in a normal relationship to the condyle.



H. Lundh, P.-L. Westesson, S. Kopp, and B. Tillstrom. Anterior repositioning splint in the treatment of temporomandibular joints with reciprocal clicking. Comparison with a flat occlusal splint and an untreated control group. *Oral Surg. Oral Med. Oral Pathol.* 60:131, 1985.