

Title: Use of fixed functional appliances for TMD treatment

Objective: Do fixed functionals like the MARA (Mandibular Anterior Repositioning Appliance) create or treat TMD?

Methods: 97 random TMD patients were studied. Patient age varied from 16 to 51 years. Clinical examinations included: full orthodontic records, MRIs of the TMJ and a manual functional analysis of the TMJ according to Bumann and Stelzenmüller. Findings before treatment and 4- 9 years after treatment were compared. Treatment consisted of condylar anterior-inferior repositioning with a fixed repositioning appliance and bite raising with fixed pivots (build-ups) on the 7s. The patients were given simultaneous physiotherapy. Prerequisite was to have 28 teeth. Some of the adult patients were retained with fixed ramps from the upper 7s to the lower 7s to prevent both distal movement of the mandible and dorsal bruxism.

Results: The development of subjective complaints of the patients was recorded and put into a graphic table (fig. 1). Most remarkable was the reduction of facial pain and TMJ pain from 53 % (of the patients) to merely 5 % (of the patients). Good results have also been obtained in the elimination and/or reduction of tinnitus and clicking. A reduction of the other symptoms has also been achieved for the other problems, including headaches and open/ close lock, etc.

Conclusions: Anterior-inferior condylar repositioning with Fixed Functionals like the MARA helps TMD, especially if the mandible is held permanently anteriorly with ramps after treatment (if necessary). Most remarkable was the elimination and/ or reduction of joint and facial pain!