

OP44 THE EFFICACY OF FUNCTIONAL THERAPY ON THE QUALITY OF LIFE IN THE MANAGEMENT OF TEMPOROMANDIBULAR DISORDERS IN PATIENTS AFFECTED BY JUVENILE IDIOPATHIC ARTHRITIS

Gaetano Isola¹, Letizia Perillo², Luca Ramaglia³, Claudio Cosio¹, Giovanni Matarese¹, ¹School of Dentistry, University of Messina, ²Department of Orthodontics, Second University of Naples and ³School of Dentistry, University of Naples "Federico II", Italy

AIM: Juvenile idiopathic arthritis (JIA) is a chronic inflammatory joint disease which can cause cartilage and bone damage as well as disability. The temporomandibular (TMJ) is frequently involved during JIA and, given the important role of TMJ disorders (TMD), there is an increasing interest in therapies that could improve the quality of life (QoL) in JIA patients. The objectives of the present study were to evaluate the clinical effectiveness of functional therapy used to reduce TMD in patients with JIA and to determine any change in the oral-health-related quality of life (OHRQoL).

SUBJECTS AND METHOD: A cohort of 58 patients with JIA (mean age, 13.4 ± 3.3 years; range, 5-18.2 years) and with TMJ involvement. Each patient, following the collection of clinical parameters, was treated for 24 months with a functional appliance individually customized by acrylic resin and resilient stainless steel with posterior and anterior metallic bite planes. During clinical assessment, TMJ signs and symptoms were recorded and OHRQoL was measured using the Oral Health Impact Profile (OHIP-14) questionnaire designed to measure the frequency of problems associated with the stomatognathic apparatus. The differences before (T0) and after therapy (T1, 24 months) of the clinical TMJ signs and symptoms parameters were evaluated by the chi-squared test and the Friedman two-way analysis of variance (ANOVA) was used to compare the relative changes in the OHRQoL scores at T0 and T1.

RESULTS: All patients successfully completed the study. The use of a functional appliance resulted in a statistically significant difference in pain during jaw movement, maximal mouth opening, TMJ sounds and crepitations ($P < 0.001$) and TMJ clicking significantly reduced at T1 ($P < 0.05$). Significant changes were observed in the different OHIP-14 scores parameters ($P < 0.001$) and there were significant reductions in the domain of the OHIP-14 scores as treatment progressed compared with T0 ($P < 0.001$).

CONCLUSIONS: Functional therapy significantly improves OHRQoL and most probably reduces the level of TMJ inflammation and TMJ arthritis-related orofacial symptoms, and was safe and well tolerated by the patients.