Pediatric Rheumatology



Poster presentation



# Mandibular condyle destruction in juvenile idiopathic arthritis (JIA)

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## Aim

Assessment of destruction of the mandibular condyle in relation to clinical baseline data and disease progression in JIA.

## Materials and methods

293 consecutive patients (f = 198; m = 95) diagnosed 1995–2006 participated. Median JIA onset age was 6 1/2 yrs for girls and 8 yrs for boys. ILAR classification: persistent-oligoarticular (*p-oligo*) 26%, extended-oligoarticular (*e-oligo*) 24%, polyarticularRF- (*poly-*) 22%, polyarticularRF+ (*poly+*) 1%, enthesitis-associated (*ERA*) 16%, psoriatic (*pso*) 6% and systemic (*sys*) 5%. Disease course, uveitis, ANA, IgM-RF and HLA-B27 was recorded. Due to small numbers *sys*, *poly+* and *pso* were excluded from subtype analysis. Patients with *poly-* and *e-oligo* were regarded as *polyarticular course*. Orthopantomographics was done in all. 79% had 2 or more radiographs. Condylar morphology grading was: 0 = normal; 1 = erosions of the surface; 2 = flattening; 3 = total destruction.

## Results and discussion

At the first examination, 28% had radiographic TMJ changes (1:29%; 2:66%; 3:5%). During the observation period, additional 7% developed TMJ changes, increasing the total frequency to 35%. 10 pt. with condylar lesions showed progression during the observation period. TMJ changes were significantly associated with ANA+. No other baseline associations were observed. In logistic regression models for TMJ changes, the following independent variables contributed significantly to the equation: ANA+ (p = 0.01), ILAR subtype (p = 0.009), and age (p = 0.02) at first examination. The OR for *polyarticular course* vs. *ERA* was 4.6 (95%CI:1.7–12.5) and *p-oligo* vs. *ERA* 2.9 (95%CI:1.0–8.0).

## Conclusion

A lower frequency of mandibular condyle destruction in JIA than reported in several previous studies was found. Progression of changes was mild to moderate. The data suggest that condyle destruction in JIA is associated with ILAR subtype, age at disease onset and ANA+.