

Poster presentation

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## Temporomandibular joint arthritis in patients with juvenile idiopathic arthritis: efficacy of intraarticular corticosteroid injection as measured by MRI and clinical examination

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### Background

Untreated temporomandibular joint (TMJ) arthritis in children with juvenile idiopathic arthritis (JIA) can lead to disturbed growth of the mandible. Because TMJ arthritis is often asymptomatic the efficacy of intraarticular steroid injections is difficult to assess clinically.

### Materials and methods

JIA-patients with active TMJ arthritis on MRI were injected with 5 mg triamcinolone into affected joints. Clinical examination at baseline and after injection and control MRI was performed. A cohort of patients without TMJ inflammation on MRI served as control group for the clinical symptoms.

### Results

21 study patients and 17 control patients were examined. The baseline mean maximal mouth opening was significantly different with 41 mm in study patients compared to 46 mm in controls ( $p = 0.005$ ). After a median time of 42 days the mean maximal mouth opening increased by 1.8 mm in the study group ( $p < 0.003$ ) as compared to 0.5 mm in the controls ( $p = 0.15$ ). Pain on chewing/yawning had resolved in all 5 patients and tenderness in 7/11 TMJs respectively. On follow up MRI 23/36 affected joints showed improvement and 6/36 complete resolution of inflammation.

### Conclusion

In our JIA patients with MRI proven active TMJ arthritis intraarticular steroid injection led to resolution of clinical symptoms and significantly improved mouth opening in most patients. However, MRI examination showed only improvement but not complete resolution of inflammation in the majority of patients. Longer follow up is warranted to assess the significance of persistent MRI changes for the mandibular growth in our patients.