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# Oral health in children with juvenile idiopathic arthritis

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## **ABSTRACT**

The overall aim of this thesis was to illuminate different aspects of oral health that can be investigated in the clinical meeting with the child diagnosed with JIA.

A cross-sectional case control study consisting of clinical examination of intraoral tissues, occlusion, facial appearance, jaw function and pain sites were designed (papers I and II). The findings were compared to controls, related to each other and to medical assessments. Patient's report of eating- and toothbrushing difficulties, the severity of pain and dysfunction and its influence on daily life was also interrelated.

Another aim was to improve our understanding and maybe gain fresh views of how children perceive their orofacial symptoms and encounter with the dental care. Therefore depth interviews were performed and analyzed in a qualitative grounded theory study (Paper III).

Furthermore, another aim was to validate clinical suspicion of arthritis by investigating its relationship to the gold standard for diagnosis of synovitis, contrast enhanced magnetic resonance imaging (MRI) (Paper IV).

Children with JIA had significantly more bleeding on gingival probing and plaque compared to controls and need individual advice for this. Regularly check up of the gingiva concerning dental hygiene, papilla atrophy and attachment loss is to be recommended as the children might have a higher susceptibility for parodontal diseases. At examination and treatment the mucosal ulcers should be addressed as they constitute a part of the eating difficulties.

Orofacial pain and dysfunction was a substantial part of the symptoms JIA children had to cope with in daily life. They need information, coping strategies and treatments for this. To regularly perform a clinical examination of pain and jawfunction is mandatory to disclose disease activity and treatment needs. The diagnostic parameters of reduced jaw opening, reduced translation of the condyle and palpation pain of the temporomandibular joint was the most significant findings for active synovitis correlated to MRI signs. A convex profile was common but micrognathia was rare. It is important to remember in the meeting with the children that they are enduring their pain and dysfunction in silence and might need help from caregivers to put words on their problems. It is important to focus on treatment strategies of pain and maintained jaw function as well as strategies for coping, normalization and encouraging. The caregiver should be careful with pointing out diagnoses and disabilities since it was shown that to be as much as possible as a healthy child is important for the self identity and pointing out differences can be considered humiliating.

Conclusively the novel findings in this thesis were the dignity and severity of the orofacial symptoms and signs for children diagnosed with JIA, for many the symptoms influencing daily life the most. The children needs comprehensive care concerning oral health and since clinical findings of arthritis showed correlations to the general disease and to TMJ synovitis on MRI, diagnose and treatment of TMJ arthritis might be instituted on clinical grounds. Children with JIA often endure their symptoms in silence needing caregivers for coping strategies, empathy and treatments.

Key words: Juvenile Idiopathic Arthritis, oral health, mucosal ulcers, medication, gingivitis, temporomandibular joint, orofacial growth, pain, children, MRI, clinical signs, qualitative research.

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