

CONTROL ID: 2954384

TITLE: Idiopathic condylar resorption: longitudinal 3-dimensional evaluation of the mandibular condyle

PREFERRED PRESENTATION TYPE: Oral

CURRENT SCIENTIFIC GROUPS & NETWORKS: Craniofacial Biology Research

PRESENTER: Cristina Exposto

PRESENTER (INSTITUTION ONLY): Aarhus University

AUTHORS (FIRST NAME INITIAL LAST NAME): C. R. Exposto¹, P. B. Stoustrup¹, K. D. Kristensen¹, M. Dalstra¹, T. K. Pedersen¹

AUTHORS/INSTITUTIONS: C.R. Exposto, P.B. Stoustrup, K.D. Kristensen, M. Dalstra, T.K. Pedersen, Dentistry and oral health, Aarhus University, Aarhus, DENMARK]

ABSTRACT BODY:

Objectives: To describe longitudinal condylar changes in a group of patients with idiopathic condylar resorption (ICR) and to compare them to a healthy, age and gender matched control group

Methods: This retrospective longitudinal cohort included 17 ICR patients (mean age: 15y 9m, range: 7y 4m to 22y). Diagnostic and follow-up (mean: 1y 11m) CBCT scans were reconstructed. The matched control group consisted of 17 patients (mean age: 14y 6m, range: 7y 9m to 25y 11m) who had diagnostic and follow-up (mean: 2y 2m) CBCT scans taken as part of their orthodontic treatment. Stable mandibular structures were used to define a 3-plane reference coordinate system. For each condyle the most cranial, medial, lateral, anterior and posterior points were identified and the shortest perpendicular distance to the three reference planes was calculated for both time points. Condylar changes were evaluated through the transversal, vertical and antero-posterior displacement of the points from baseline to follow-up. The condylar neck angle (CNA) was defined as an angle formed between the axial reference plane and a plane passing through the most cranial condylar point.

Results: At baseline, ICR condyles were smaller in all 3-dimensions, with the resorption occurring mainly at the most cranial, posterior and medial condylar points. At follow-up, the overall displacement of these points was significantly smaller for the ICR patients in the same locations; however, there were large individual variations. At baseline, the CNA of the ICR group was on average more posteriorly inclined, but with no significant changes over time.

Conclusions: The baseline condylar dimensions significantly differed between the ICR and control groups. Condylar dimensional changes varied between baseline and follow-up, with ICR patients displaying a significantly smaller amount of condylar development when compared to controls, indicating a possible growth related remodeling procedure in the ICR group rather than condylar resorptions.

TABLE TITLE: (No Tables)

(no table selected)

TABLE FOOTER: (No Tables)

(No Image Selected)

KEYWORDS: idiopathic condylar resorption, CBCT.

AWARDS: IADR Group/Network Award-IADR Student Awards in Craniofacial Biology|IADR-Scandinavian Division-NOF Hatton Awards

Student Status - Abstracts: Masters Student (after professional degree)

Support Funding Agency/Grant Number - Abstracts: (none)

Financial Interest Disclosure: NONE

Group Author Abstracts - Abstract: (none)