

# Three-dimensional skeletal changes after early proportional condylectomy for condylar hyperplasia

Fariña, R.

Moreno, E.

Lolas, J.

Silva, F.

Martínez, B.

The purpose of this study was to evaluate volumetric and dentoskeletal changes in 21 patients with active unilateral condylar hyperplasia (AUCH) after proportional condylectomy. A split-mouth design was used: control group healthy joints (HS, healthy side) and test group affected joints (AS, affected side) (21 per group). Cone beam tomography scans were obtained at T0 (preoperative), T1 (10 days after the intervention), and T2 (approximately 12 months post-surgery). The condylar unit volume (CUV), articular cavity volume (ACV), and dentoalveolar units (DAUs) were measured. CUV showed a difference of 1.12 cm<sup>3</sup> between T0 and T1, increasing 0.4 cm<sup>3</sup> between T1 and T2 on AS. There was no difference between T0 and T2 on HS. ACV increased 0.65 cm<sup>3</sup> between T0 and T1 on AS, after which it decreased by 0.36 cm<sup>3</sup> at T2 (0.30 cm<sup>3</sup> larger than the initial articular cavity at T0). ACV showed no post-surgery differences on HS. Midline D