

High condylectomy versus proportional condylectomy: Is secondary orthognathic surgery necessary?

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The objective of this study was to assess the need for secondary orthognathic surgery in patients undergoing two different condylectomy protocols for active unilateral condylar hyperplasia (UCH). A retrospective cohort study evaluated UCH patients treated by condylectomy. Two groups were established: group 1 comprised those who had undergone a high condylectomy (5 mm removed) and group 2 comprised those who had undergone a proportional condylectomy (removing the difference observed between the measurements of the hyperplastic and the healthy side). Data analysis was done with the Levene test and t-test; a P-value of <0.05 indicated a statistically significant relationship. Forty-nine patients, with an average age of 19.83 years, were analyzed; 11 were included in group 1 and 38 in group 2. There was no statistical difference between the two groups with regard to age or sex ($P = 0.781$). An average of 5.81 mm was removed in the high condylectomy group, while an average of 9.28 mm was removed in the proportional condylectomy group; this difference was statistically significant ($P = 0.042$). Comparing the two groups, proportional condylectomy reduced the need for secondary orthognathic surgery ($P < 0.001$). The proportional condylectomy can be used as the sole surgical treatment in cases of UCH, thus avoiding the need for secondary orthognathic surgery. © 2015 International Association of Oral and Maxillofacial Surgeons.

condylar hyperplasia

condylectomy

facial asymmetry

hemimandibular elongation

hemimandibular hypertrophy

high condylectomy

low condylectomy

mandibular condyle

orthognathic surgery

proportional condylectomy

adult

Article

clinical article

cohort analysis

female

high condylectomy

human

hyperplasia

intermethod comparison

male

maxillofacial surgery

orthognathic surgery

osteotomy

proportional condylectomy

retrospective study

surgical technique

unilateral condylar hyperplasia

diagnostic imaging

face asymmetry

hyperplasia

mandible condyle

mandible osteotomy

orthodontics

pathology

physiotherapy

reoperation

sagittal split ramal osteotomy

surgery

treatment outcome

x-ray computed tomography

young adult

Facial Asymmetry

Female

Humans

Hyperplasia

Male

Mandibular Condyle

Mandibular Osteotomy

Orthodontics, Corrective

Orthognathic Surgical Procedures

Osteotomy, Sagittal Split Ramus

Physical Therapy Modalities

Reoperation

Retrospective Studies

Tomography, X-Ray Computed

Treatment Outcome

Young Adult