

題名:Facial form in association with mandibular morphology

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摘要:The aim of this retrospective study was to determine correlations between condylar characteristics measured from preorthodontic tomograms of preadolescents and their facial morphologic characteristics. The sample consisted of 136 patients displaying a Class II malocclusion, a vertical or horizontal skeletal growth tendency, and ranging in age between 10 years 0 months and 12 years 6 months for males and 9 years 0 months and 11 years 6 months for females. Two groups were established: the vertical group had 68 patients, 36 males and 32 females, (average pretreatment age, 11 years 0 months); the horizontal group also had 68 patients, 29 males and 39 females, their average pretreatment age was 10 years 9 months. The central cut of axially corrected lateral tomograms of the left and right temporomandibular joints for each group was randomized, blinded, and traced for condyle/fossa measurements including: anterior, superior and posterior joint space; condylar head and posterior condylar ramus inclination; condylar neck width; and condylar shape and condylar surface area. A logistic discriminant analysis with significance values set at $p < 0.05$ was used to determine the most reliable condylar characteristics to predict facial morphology. A cluster analysis was completed on the significant variables to form three clusters. Numeric ranges separating these clusters were then calculated. Chi-square tests measures of association were computed for significant variables and tested for associations between facial morphologic characteristics. Condylar head inclination and superior joint space proved to be significantly correlated to

facial morphology (p values ranged from 0.010 to 0.018). Patients with vertical facial morphologic characteristics displayed decreased superior joint spaces and posteriorly angled condyles. Increased superior joint spaces and anteriorly angled condyles were significantly correlated to patients with a horizontal facial morphology. No significant correlations between the other condylar characteristics and facial morphology were determined.