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Poster(Competing)

Mandibular Morphology Differences Between Edentulous And Dentate Assessed By Panoramic Radiographs

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Introduction: Facial profile can be influenced by edentulous condition that can change mandibular morphology that can affect mastication, digestion and psychosocial life. Edentulism causes absence of occlusal mechanical stimulus, decrease the activity of mastication muscles and increase mandibular bone resorption. These changes can be assessed using panoramic radiography by looking at the vertical dimension of the head of the condyle and its shape, ramus, and the angle of the mandible. The aim of the study was to assess the mean value and differences of mandibular morphology in edentulous and dentate patients using panoramic radiography. **Materials and Methods:** This was an analytical study with cross-sectional approach using purposive sampling methods. 50 dentate and edentulous patients who came to Dentistry Hospital of University of Sumatera Utara were used as sample. Data analysis was done using Independent T test and Mann-Whitney test. **Results:** Results showed that the average value of gonial angle, ramus height, condylar height, antegonial notch depth and ramus notch depth in edentulous patients were $125,38 \pm 9,51$; $35.98\text{mm} \pm 4.26$; $5.58\text{mm} \pm 0.90$; $2.11\text{mm} \pm 1.04$; and $2.73\text{mm} \pm 0,88$, and the results showed that the average value of mandibular morphology in dentate patients were 123.34 ± 7.07 ; $38.15\text{mm} \pm 3.23$; $6.95\text{mm} \pm 1.25$; $1.41\text{mm} \pm 0.77$; and $2.15\text{mm} \pm 0.59$. **Conclusion(s):** There were significant differences in the values of ramus height, condylar height, antegonial notch depth, and ramus notch depth. Difference was also found in gonial angle value, but was not statistically significant.

KEYWORDS: morphology of mandibular, edentulous, dentate, panoramic radiography