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Sex and Age Assessment Based on Mandibular Morphometry Analysis via Dental Panoramic Tomograph – A Retrospective Study
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Abstract
Introduction: Mandible is the strongest and most durable facial bone. Methods: 202 Dental Panoramic Tomograph (DPT) consisted of 116 females and 86 males between ages of 18-34 years old were selected from the computer server at radiology department of Kulliyyah of Dentistry ranging from 2010 until 2020. The DPT were viewed on Planmeca Romexis software where linear and angular mandibular parameters were assessed accordingly in milimeters and degree, respectively. Relationship and correlation analysis among the mandibular morphometry measurements with regards to sex and age were tested respectively. Results: Four bilateral linear mandibular parameters (maximum ramus breadth, MxrB; minimum ramus breadth, MnRB; coronoid height, CH and condylar height, CdH) showed statistically significant difference ($p < 0.0.5$) in terms of relationship between sex and mandibular. Meanwhile, only maximum ramus breadth (MxRB) bilaterally, right minimum ramus breadth (MnRB), right coronoid height (CH) and right gonial angle (GA) were found to be statistically significant and correlated with age. Hence, the regression equations for the correlated mandibular measurements were generated accordingly. Conclusion: In conclusion, DPT mandibular measurements were proved to be a good tool for sex and age assessment for certain morphometry. © 2024 Universiti Putra Malaysia Press. All rights reserved.

Author Keywords
age; dental panoramic tomograph; dimorphism; Mandibular morphometry; sex

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