

**OSTEOMETRIC ESTIMATION OF SEX FROM MASTOID TRIANGLE IN MALAYSIAN POPULATION****ABDELNASSER IBRAHIM<sup>1,2</sup>, ASPALILAH ALIAS<sup>1,3</sup>, MOHAMED SWARHIB SHAFIE<sup>1</sup>, SRIJIT DAS<sup>4</sup>,  
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**ABSTRACT**

**Objective:** Determination of sex is one of the most important parameters for conducting biological profile of unknown skeletal remains in anatomical anthropology and forensic medicine. Mastoid bone is useful for the identification of sex, as it is the most protected bone and is resistant to damage, due to its anatomical position at the base of the skull. The aim of this study was to develop new equation for the estimation of sex from mastoid triangle in the Malaysian population.

**Methods:** About 10 parameters were studied on 388 computed tomography scans of crania in 231 males and 157 females. The parameters comprised three sides of mastoid triangle, its perimeter and area on both sides. T-test was used to compare between the right and left sides and between males and females. Stepwise discriminant function was used to reveal the best discriminatory parameter and its classification accuracy.

**Results:** Comparison of means by T-test revealed no difference between the right and left sides in both sexes. T-test showed a significant difference between males and females for all parameters. Perimeter of mastoid triangle was found to be the best parameter by stepwise discriminant analysis. The equation based on perimeter of mastoid triangle was developed with 84.4% classification accuracy.

**Conclusion:** The developed equation could be used to assess sexual dimorphism of fragmented Malaysian crania with intact mastoid region. The achieved cross-validated classification was relatively high compared to that in other previous studies.

**Keywords:** Mastoid, Sex, Computed tomography scan, Anthropology, Forensic.

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