Sex and stature prediction from handprint measurements in Jordanian population sample

*Melad Gad Paulis, *Professor of Forensic Medicine and Toxicology, Faculty of Medicine, Mut'ah University, Jordan*

Zaid Al-Tawalbeh, Laith Al-Najada, Rakan Al-Jabsheh, Mahmoud Barakat, *&* **Mohammad Amayreh**, *Medical student, Faculty of Medicine, Mut'ah University, Jordan*

Abstract

Background: Determination of personnel identity is a vital process in medicolegal process investigations. In this context, stature and sex are considered as two of the "Big Four" parameters required to assist with the identification of an individual when other lines of evidence are corroborative. In Jordan there are lack of such studies that generate population specific equations that predict sex and stature..

Objective: This study aims to use handrpint from right hands of a Jordanian population sample to predict the sex and stature.

Method: Fifty male and forty female right hands of Mut'ah University students were scanned, processed via Photoshop program. Handprint measurements were taken using a software program. Regression analysis and discriminant function were used to predict stature and sex respectively.

Results: This study succeeded in the development of equations that may be helpful to obtain approximate stature when there is difficulty in acquiring a direct measurement or where there is a chance print of a criminal or an amputated hand or arm. Sex was also, expected from theses handprint measurements.

Conclusion: It is concluded that prints left by the hand, or even parts of it, in the scene of the crime can be used to estimate the height and sex of an unknown suspect.

Keywords: stature, sex, handprint, Jordaninan

Biography

I'm professor of Forensic Medicine & Clinical Toxicology. I'm interested in research in forensic medicine especially, identification, postmortem changes, estimation of time death and using software in assisting forensic expert work. I have 15 years of research and education of Forensic science and toxicology.