PALMAR CREASES AND HANDEDNESS IN HAUSAS OF NORTHERN NIGERIA: A CROSS-SECTIONAL STUDY

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ABSTRACT

Dermatoglyphics have been widely studied in relation to chromosomal aberrations and other genetic makeup and was shown to vary across different ethnic populations. This is also true for handedness. We undertook this cross-sectional study to estimate the prevalence of normal and abnormal palmar creases, and handedness in seemingly normal individuals among the Hausa ethnic group of northern Nigeria. Four hundred and sixty-two (n=462) participants were randomly recruited, comprising of 243 males and 219 females. SPSS (Version 21) was used to analyze the data. For association, Fischer's exact test was used and $P<0.05$ was considered statistically significant. The results showed Normal palmar crease to be the most prevalent (about 89% on both palms) followed by Simian palmar crease (7.8% on the right palms and 8.2% on the left palms) then Suwon crease (2.2% on the right, 1.7% on the left palms) and Sydney crease (1.5% on the right, 1.1% on the left palms). The latter showed no manifestations in the females. For handedness, right handedness was more prevalent (89.6%), followed by left handedness (10.2%) and ambidextrous was least (0.2%); only a single case was seen. Association between handedness with palm creases (right palm $P=0.403$, left palm $P=0.786$); gender with palm creases (right palm $P=0.055$, left palm $P=0.165$); and gender with handedness ($P=0.489$) were not statistically significant. This study estimated the prevalence of palmar creases and handedness in Hausa ethnic group, confirming anthropologic variability of different populations.

Keywords: Anthropometry, dermatoglyphics, dexterity, phenotype.