



The Pattern Of Palmar Flexion Creases Among The Igbos Of South-Eastern Nigeria

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ABSTRACT

This study involves the inspection and documentation of the palmar creases of the right hand of 1000 subjects among the Igbos of the South-eastern Nigeria. The results showed that most of the subjects have 3 major creases, but about one-third of them have a midpalmar longitudinal crease which has not been given a prominent place in Caucasian studies. There was also a significant sexual dimorphism in the pattern of creases between males and females.

Keywords Palmar crease, Sex dimorphism.

The skin of the palm of the hand is characterized by flexion creases (the "lines" of the palm) and the papillary ridges, or finger prints, which occupy the whole of the flexor surface. While the former help in the folding of the hand, the latter serve to improve the grip (Sinatmamby 1990). However, the features of the palm have been put to other uses by Clinicians, Palmists and Criminologists. Certain patterns of palmar creases have been associated with different types of diseases (Edelstein et al 1991, Schaumann and Kimura 1991). Also the palmists have used these creases to identify different types of personalities and to predict the future of individuals (Opitz and Johnson 1971). While the finger prints have been used in criminology for years to identify individuals, the use of palmar crease for such identifications is increasingly being advocated (Asbaugh 1991).

The use of palmar flexion creases for above mentioned purposes will depend on the identification of a normal pattern of palmar creases in a given population and the proper classification of this pattern. Different classifications of palmar crease have been advocated in literature but the one that is mostly in use is that advocated by Ramesh (Chaube 1971).

While the pattern of palmar creases has been studied in some Caucasian and Asian populations (Hernandez 1985) Chaube 1977), not much has been written about the pattern among Nigerians. The purpose of this study is to establish the pattern of palmar flexion creases among the Igbos of South-eastern Nigeria.

MATERIAL AND METHODS

This study involves the inspection and documentation of the palmar creases of the right hand of 1000 subjects. These were obtained from Imo State University Owerri, and other tertiary institutions located outside Owerri. In addition to these institutions, some villages in 2 local government areas of Imo State were also visited. Owerri is the capital city of Imo State and is cosmopolitan in nature also is the university. Its students are from all the states of the Southeast.

The subjects were reassured that the inspection of their palms was not for ritual or palmistic purposes. For children in the primary schools visited, written permission was obtained from their parents before they were used for the study. Only the major creases were recorded.

RESULTS AND DISCUSSION

One thousand subjects took part in the study. Out of this number 411 (41.1%) were males and 589 (58.9%) were females. There were five major patterns of palmar crease identified in this study (Fig. 1).

- a. Shows those with 2 unjoined creases
- b. Shows those with 3 unjoined creases
- c. Shows those with 3 creases whereby the longitudinal radial and the proximal transverse creases joined for about 1- 1.5 before reaching the radial border of the hand.
- d. Also shows those with 3 creases but the radial longitudinal and the proximal transverse creases joined at the radial border of the hand.
- e. Shows those with 4 crease, which includes a midpalmar longitudinal crease. In some

individuals the midpalmar longitudinal crease stopped at the proximal transverse crease while in some it crossed to reach the distal transverse crease.

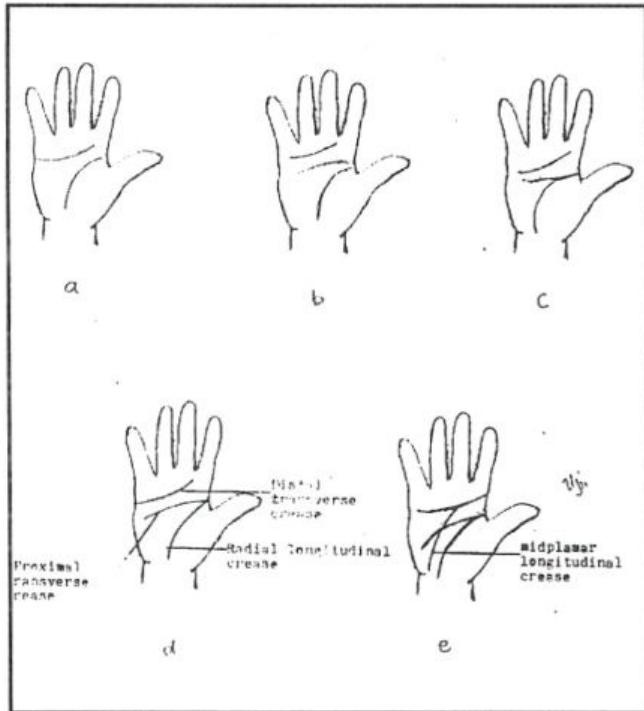


Fig. 1: Patterns of major palmar creases observed in the subjects

Table 1 showed the distribution of the number of creases per hand of the studied population. The highest number of subjects, 638 (63.8%) have 3 major creases. Three hundred and forty seven (34.7%) of the subjects have 4 creases while only 15 (1.5%) of the population have 2 creases.

Table 2 shows the distribution of creases among the male subjects. Majority of the males 292 (71.05%) have 3 creases, while in table 3, three hundred and forty-six females (58.74%) have 3 creases.

In table 4 while 63.5% of the male subjects have joined creases, only 48.6% of female subjects have joined creases.

Table 5 shows that 51.4% of the females have unjoined creases.

This study was carried out to establish the pattern of palmar creases among the Igbos of south-eastern Nigeria. It was observed that while most of the subjects have 3 major creases, the males demonstrated more joined creases than the females. In effect the females have more of unjoined creases than joined ones. This significant sexual

dimorphism was also found in a study done among the Spaniards (Hernandez 1985). One other significant finding in the study was the number of subjects with the midpalmar longitudinal crease. More than one-third of those studied had this crease. This crease is not mentioned in anatomy text books and was also not included in the classification by Chaube (Chaube 1971). It appears that this crease may be peculiar to the blacks. Studies need to be done in other ethnic groups in Nigeria and beyond to corroborate this finding.

Among those with 2 creases we did not find any that joined. This is at variance with the classification by Chaube in which joined 2 creases was a significant finding.

Palmar creases may be used for identification in the process of proving that the suspected criminal is not responsible for the crime if the pattern of the crease found at the site of the crime is different from that of the subject. If the crease pattern is similar to that of the subject it may not be a strong point because there are slight similarities of pattern in different individuals.

In almost all the subjects except one none of the transverse creases extended from the radial to the ulnar borders of the hand. This so-called line is not a significant finding in our studied population.

Having established the normal pattern of palmar creases, the pattern in certain categories of illness can now be compared with the normal.

Table 1: No of major palmar creases per hand (right)

No of creases	Subjects	Percentage (%)
2	15	1.5
3	638	63.8
4	347	34.7
Total	1000	100.00

Table 2: No of creases per hand for males

No of creases	Subjects	Percentage (%)
2	4	0.97
3	292	71.05
4	115	27.98
Total	411	100.00

Table 3: No of creases per hand for females

No of creases	Subjects	Percentage (%)
2	11	1.87
3	346	58.74
4	232	39.39
Total	589	100.00

Table 4: Joined radial & transverse creases

	No	Percentage (%)
Males	261	63.5
Females	286	48.6

Table 5: Unjoined radial and transverse crease

	No	Percentage (%)
Males	150	36.5
Females	303	51.4

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