

Letter to the Editor—Uncommon Palm Prints: Can They be Used for Forensic Identification?

Sir,

Finger and palmar print evidence is a reliable source for personal identification in forensic science (1–3). Although details of the epidermal ridges are unique for an individual, generally finger and palmar patterns can be classified as arches, loops, and whorls. These patterns complete their fetal development by mid-second trimester, and their final expression is influenced by both genetic and prenatal environmental factors (4). Thereafter, the patterns remain unchanged except for an increase in size due to growth and minor alterations in appearance as a result of use, aging, and possible injury.

We have encountered quite rare occurrences of whorl patterns on the palms of two persons. Two Sinhalese females were observed to have whorls in the 3rd and 4th interdigital (ID) areas on the left palm of a 45-year old (Fig. 1A) and in the 3rd ID area on both palms of a 63-year old (Fig. 1B, C), respectively. While palmar arches and loops are most commonly found in the interdigital areas on human palms (5), palmar whorls are typically observed in nonhuman primates (6). However, Cummins et al. (6) and Hajn (7) both note that interdigital whorls do sometimes occur on human palms. This unusual condition was observed on three of 452 palms examined during our ongoing study. In addition to ridge details that establish unique identity, this condition marks the body similar to that of birthmarks, scars, and tattoos as distinctive features that often assist in personal identification (2). Accordingly, these rare pattern occurrences could provide some value to forensic science.

References

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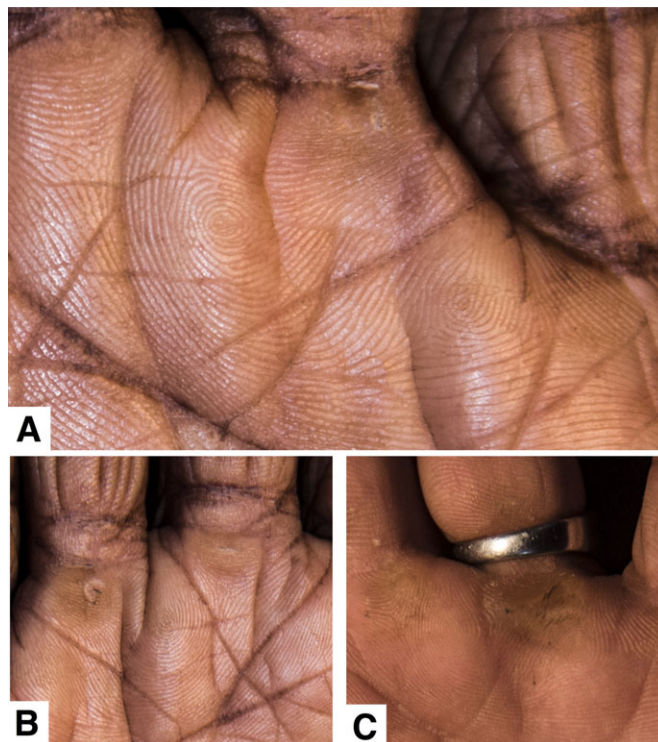


FIG. 1—Palmar whorls (A) Left palm of 45 year old female; (B and C) Left and right palm of 63 year old female.

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