

Palmar Dermatoglyphics of Relli and Manne Dora Populations of Andhra Pradesh

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ABSTRACT Some of the qualitative and quantitative palmar dermatoglyphic characters of 100 Relli caste individuals and 100 Manne Dora tribals of Andhra Pradesh are reported in this paper. The variables studied, are principal mainline formulae, frequency of true patterns in different configurational areas, interdigital ridge counts on a-b, b-c and c-d and angle atd. the bimanual and bisexual differences among these two populations are ascertained.

INTRODUCTION

Variation in reference to dermatoglyphic features are important in anthropological research of the populations due to their non-adaptiveness and variability. The present paper aims at the variation in the extent of some qualitative and quantitative features of palmar dermatoglyphics among two endogamous Andhra populations namely, Relli and Manne Dora. Relli is one of the Scheduled castes of Andhra Pradesh and most of them carry their traditional occupation by serving as scavengers in Municipal Corporation and other firms in Visakhapatnam. Manne Dora, a settled tribe, depends mainly on agriculture and wood cutting in the plain areas of Visakhapatnam district.

MATERIAL AND METHODS

Bilateral palm prints of 50 males and 50 females of Manne Dora and 50 males and 50 females of Relli adult individuals were obtained by ink and roller method. The analysis of various qualitative and quantitative features was carried out after Cummins and Midlo (1961), Holt (1949) and Penrose (1968).

RESULTS AND DISCUSSION

The results of both qualitative and quantitative palmar dermatoglyphic data on Relli and Manne Dora are shown in table 1. In the principal mainline formulae, the type 7.5.5.- predominates all other types in both sexes of Manne Dora, while the percentages of 11.9.7.-, 9.7.5.- and 7.5.5.- are lesser than the total of remaining types in both male and female Rellis. The nature and occurrence of true patterns in different configurational areas show both bimanual and bisexual differences. The trend of patterns among Relli is III>IV>Hy>II>Th/I (males) and III>IV>Hy>Th/I>II (females). Among Manne Dora, it is IV>III>Hy>Th/I and II in males and III>IV>Hy>Th/I>II in females.

The mean values and standard errors of interdigital ridge counts i.e., a-b, b-c and c-d and angle atd are presented. Relli shows higher mean values for a-b ridge counts followed by c-d and b-c in both the sexes. Manne Dora males show higher mean values for c-d ridge count, while among females higher values of means are recorded for b-c in right hands and for c-d in left hands and also in both hands combined. Mean interdigital ridge counts on left hands are more than that on right hands

Table 1: Palmar dermatoglyphic characters among Reli and Manne Dore populations of Andhra Pradesh

	Reli Male (50)			Reli Female (50)			Manne Dore Male (50)			Manne Dore Female (50)		
	Right	Left	R+L	Right	Left	R+L	Right	Left	R+L	Right	Left	R+L
Qualitative Characters (Percentage)												
Palmar Main Line Formulae (PMLF):												
11.9.7.-	34.0	32.0	33.0	32.0	20.0	26.0	24.0	12.0	36.0	20.0	38.0	29.0
9.7.5.-	18.0	16.0	17.0	16.0	20.0	18.0	22.0	6.0	28.0	10.0	4.0	7.0
7.5.5.-	8.0	14.0	11.0	24.0	22.0	23.0	28.0	44.0	36.0	40.0	40.0	40.0
Rest	40.0	38.0	39.0	28.0	38.0	33.0	26.0	38.0	32.0	30.0	18.0	24.0
True Patterns on Configurational Areas:												
Hypethcar	30.0	42.0	36.0	38.0	32.0	35.0	28.0	30.0	29.0	38.0	32.0	35.0
Thenar/I	2.0	10.0	6.0	12.0	22.0	17.0	4.0	6.0	5.0	12.0	22.0	17.0
II	8.0	10.0	9.0	8.0	6.0	7.0	8.0	2.0	5.0	8.0	6.0	7.0
III	50.0	46.0	48.0	66.0	68.0	67.0	34.0	28.0	31.0	66.0	68.0	67.0
IV	36.0	40.0	38.0	58.0	48.0	53.0	64.0	74.0	69.0	58.0	48.0	53.0
Qualitative Characters (Mean $\pm$ SE)												
Ridge Counts:												
a-b	42.8 $\pm$ 0.93	43.8 $\pm$ 1.04	86.6 $\pm$ 1.97	37.0 $\pm$ 0.94	38.8 $\pm$ 0.11	75.8 $\pm$ 1.12	34.7 $\pm$ 0.80	37.2 $\pm$ 0.82	74.6 $\pm$ 1.62	32.8 $\pm$ 1.36	29.2 $\pm$ 1.16	62.1 $\pm$ 2.53
b-c	26.9 $\pm$ 1.00	29.5 $\pm$ 0.87	56.6 $\pm$ 1.87	24.0 $\pm$ 0.77	24.0 $\pm$ 0.66	48.6 $\pm$ 1.44	27.0 $\pm$ 0.74	25.8 $\pm$ 0.43	52.8 $\pm$ 1.18	35.2 $\pm$ 0.95	27.3 $\pm$ 0.93	62.5 $\pm$ 0.88
c-d	36.6 $\pm$ 1.15	35.8 $\pm$ 0.97	72.2 $\pm$ 2.12	32.8 $\pm$ 0.96	32.8 $\pm$ 0.96	74.4 $\pm$ 1.78	38.6 $\pm$ 0.89	38.4 $\pm$ 0.91	77.0 $\pm$ 1.81	30.2 $\pm$ 1.14	33.9 $\pm$ 1.50	64.1 $\pm$ 2.65
Angle <i>ad</i>	40.2 $\pm$ 0.52	39.4 $\pm$ 0.66	79.6 $\pm$ 1.22	41.2 $\pm$ 0.72	40.2 $\pm$ 0.80	81.4 $\pm$ 1.52	45.0 $\pm$ 0.77	46.4 $\pm$ 0.72	91.4 $\pm$ 1.50	41.0 $\pm$ 1.13	41.2 $\pm$ 1.11	82.2 $\pm$ 2.24

in both the populations as earlier studies (Bhasin, 1967; Bhanu and Malhotra, 1969; Sarkar, 1991). The higher mean value of atd angle is recorded among Manne Dora men followed by Manne Dora women, Relli women and Relli men. Relli's left hands exhibit higher values of atd angle than right hands, while Manne Dora recorded a reverse trend.

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