

Finger Dermatoglyphics: A Study of The Rajputs of Himachal Pradesh

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INTRODUCTION

The Rajputs are distributed all over the various states of India like Punjab, Haryana, Delhi, Uttar Pradesh, Himachal Pradesh and Rajasthan and constitute an important population group. They acquire a significant place in Indian anthropology and ethnic history because of their obscure origin. In the present paper, data on the finger characteristics of Rajputs from District Shimla, Himachal Pradesh, have been presented. The Rajputs trace their pedigree from the heroic period of Hindu legend, but are probably descended from Asian immigrants in the 5th - 6th centuries A.D. They represent the old Kshatriya or warrior noble caste, ranking next to Brahmins. The conquest of Hindustan by the Muslims forced them into the arid hill- country, since named after them. Akbar won them over by war and marital diplomacy and they played a prominent part in the 16th-17th century Moghul politics until alienated by Aurengzeb's Islamic bigotry. Under Moghul and to some extent even in Modern times they have jealously preserved a feudal and chivalric mode of society.

MATERIAL AND METHODS

In the present study bilateral rolled inked fingerprints of 100 unrelated Rajput (50 males and 50 females) were collected; the age of the subjects ranged from 18 to 60 years. The data was collected from village Sundli and Jubbal

Town in Shimla District, Himachal Pradesh. The identification of patterns and ridge counts has been done according to Cummins and Midlo (1961).

RESULTS AND DISCUSSION

The different pattern types are broadly classified into three principal patterns namely whorls, loops and arches and their frequencies in both the sexes are given in table 1. It is observed that whorls are most frequent and are more frequent on the right hand than the left one, while loop and arches occur more often on the left hand. Females however, show a higher frequency of whorls as compared to their male counterparts (Table 1).

The different indices have been calculated and listed in table 2. The value of indices Pattern intensity and Furuata are high in females except Dankmeijer indices. The mean ridge counts of all the ten fingers for females are almost the same as observed for males and are 164.77 ± 6.20 (164.77 ± 6.20 , S.D.= 41.14, Range = 58-257) and 164.20 ± 7.14 (164.20 ± 7.14 , S.D.= 50.48, Range = 24-239), respectively.

Newman (1960) considered the indices of pattern intensity as one of the important criteria for the evaluation of the biologically meaningful differences between the group of populations and in the present study it has been observed that Rajputs of Himachal Pradesh (Present Study) are falling closer to Rajputs males (Kumar, 1955), Rajput males (Singh, 1961), Jats and Gujar males

Table 1: Frequency of the finger patterns among the Rajputs of Himachal Pradesh

Rajputs	Right			Left			Total (R+L)		
	Whorls	Loop	Arches	Whorl	Loop	Arches	Whorl	Loop	Arches
Males	138 (55.20)	109 (43.60)	39 (1.20)	107 (42.80)	136 (54.40)	7 (2.80)	245 (49.00)	245 (49.00)	10 (2.00)
Females	145 (58.00)	101 (40.04)	4 (1.60)	119 (48.57)	121 (49.38)	5 (2.04)	264 (53.33)	222 (46.86)	9 (1.81)
Total	283 (56.60)	210 (42.00)	7 (1.40)	226 (45.65)	257 (51.19)	12 (2.42)	509 (51.11)	467 (46.93)	19 (1.90)

Table 2: Value of different indices among the Rajputs of Himachal Pradesh

Raj-puts	Dankmeijer's Index	Pattern Intensity Index	Furuhashi's Index
Males	4.08	14.70	100
Females	3.41	15.00	118
Total	3.73	14.85	109

(Chattopadhyay and Khushwaha, 1978), Brahmin Male (Mehta, 1960), Muslim males (Sen, 1966), Kashmiri Pandits (Kumarnani, 1963), Bhils (Biswas, 1957).

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KEYWORDS Finger Dermatoglyphics. Population Variation. Caste. North India

ABSTRACT In the present investigation of dermatoglyphic characteristics of fingerprints of 100 unrelated Rajput (50 males and 50 females) of Sundli and Jubbil area of Shimla District, Himachal Pradesh have been analyzed. The results for the

present study were observed to fall within the ranges as reported for the population groups reported from North India, particularly

REFERENCES

- Biswas, P.C.: Finger dermatoglyphics of the Bhils of Rajasthan. *The Anthropologist*, **4**: 2-4 (1957).
- Chattopadhyay P.K. and Khushwaha K.P.S.: A dermatoglyphic approach to the problem of Rajput Origins. *Mankind Quart.*, **18**: 186-201 (1978a).
- Chattopadhyay P.K. and Khushwaha K.P.S.: A dermatoglyphic approach to the problem of Rajput origins. *Mankind Quart.*, **18**: 321-327 (1978b).
- Cummins, C. and Midlo, C.: *Fingerprints, Palms and Soles*. Dover Publications, New York (1961).
- Kumarnani, H.K.: Finger dermatoglyphics-Study of Pandits of Kashmir. *The Anthropologist*, **10**: 21-28 (1963).
- Kumar, A.: Finger dermatoglyphics of Kulu and Lahul Rajput with socio-economic Conditions. (1963) cited from Chattopadhyay, P. K. and Khushwaha, K. P. S. (1978).
- Mehta, S.R.: *Socio-Physical aspects of the People of Chamba: Special Topic-Finger Dermatoglyphics of the Brahmins and Mahajans of Chamba*. M.Sc. Diss. (unpublished) Univ. of Delhi, Delhi (1960).
- Newman M.T.: Population analysis of finger and palm prints in high land and low land Maya Indians. *Am. J. Phys. Anth.*, **18**: 45-58 (1960).
- Sen, D.K.: Dermatoglyphics of palm and finger Balls of Kashmiri Muslims. *Proc. of the Int. Symp. On Dermatoglyphics*, Delhi, 215-227 (1966).
- Singh I.P.: Finger ball patterns as an anthropological variables. *Anthropologist*, **2**: 36-54 (1955).
- Singh, R.D.: Digital frequency and size variations in some castes of U.P. *Eastern Anthropologist*, **14**: 169-181 (1961).

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