

A Study of Middle Phalangeal Hair Among Two Endogamous Castes of Assam

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ABSTRACT Distribution of middle phalangeal hair among the Brahmin and Kaibarta castes of Assam is reported.

INTRODUCTION

The importance of the presence of hair on the middle segment of fingers in man was first noted by Danforth (1921) and since then this trait has received considerable attention from the anthropologists and population geneticists. Its exact mode of inheritance is not yet known but it has been suggested by Danforth (1921) that complete absence of mid phalangeal hair in man is a simple recessive trait.

Studies reveal that the frequency of Individuals possessing middle phalangeal hair varies from population to population. It has been reported that the Negroids show the least frequency whereas Caucasoids possess higher frequency; between these two extremes lie the groups having Mongoloid affinity.

The present note provides information on the incidence of middle phalangeal hair among the Brahmin and the Kaibarta of Assam. The Brahmin occupy the apex position and the Kaibarta stand in the lower rung in the caste hierarchy of Assam.

SUBJECTS AND METHODS

Data were collected from Dibrugarh town of upper Assam. The presence/absence of middle phalangeal hair on different digits of both the hands were observed with the help of a magnifying lens. The sample comprises of 40 Brahmin and 73 Kaibarta males; close relatives were

avoided as far as possible.

RESULTS AND DISCUSSION

Frequencies of middle phalangeal hair in the right and left digits are shown in table 1. Among the Brahmin 0345 set shows the highest frequency in digits of both the hands (right = 15.0%, left = 17.5%). The next highest frequency is found in the set 0040 (right = 5.0%, left = 7.5%). In digits of both right and left hands of Kaibarta also the set 0345 shows the highest frequency of middle phalangeal hair (6.85% in each hand) which is closely followed by 0340 (right = 5.48%, left = 6.85%) and 0040 (right = 2.74%, left = 8.22%) sets. Counting the presence of middle phalangeal hair on all the ten digits, both the groups have their highest frequency on 3rd, 4th and 5th digits (0345; Brahmin = 16.25%, Kaibarta = 6.85%), followed by 4th digit in Brahmin (0040; 6.25%) and 3rd and 4th digits in Kaibarta (0340; 6.16%). Frequency in 4th digit is also considerably high (0040; 5.48%) in Kaibarta.

Symmetrical combinations of digits of right and left hands are shown in table 2. The frequency of individuals having the same combination of fingers bearing middle phalangeal hair in both the hands is little higher in Brahmin (95.0%) than in Kaibarta (89.04%), but this difference is statistically non-significant ($\chi^2=1.14$; d.f.=1, 0.30>P>0.20).

Several investigators have found that this trait occurs in higher frequency in the caste (Caucasoid) populations (Das, 1966; Bhattacharjee, 1956; Choudhury and Banerjee, 1978). Das (1966) have found that this trait occurs in relatively higher frequency among the caste (Caucasoid) populations of Assam. However, it

Table 1: Percentage distribution of middle phalangeal hair

Digital combination	Population	Middle phalangeal hair		
		Right hand	Left hand	Both hands
2345	Brahmin	2.50	—	1.25
	Kaibarta	—	—	—
0345	Brahmin	15.00	17.50	16.25
	Kaibarta	6.85	6.85	6.85
0340	Brahmin	2.50	2.50	2.50
	Kaibarta	5.48	6.85	6.16
0300	Brahmin	2.50	2.50	2.50
	Kaibarta	1.37	—	0.68
0040	Brahmin	5.00	7.50	6.25
	Kaibarta	2.74	8.22	5.48
0045	Brahmin	2.50	2.50	2.50
	Kaibarta	2.74	—	1.37
0005	Brahmin	—	—	—
	Kaibarta	—	1.37	0.68
0000	Brahmin	70.00	67.50	68.75
	Kaibarta	80.82	76.71	78.77

Table 2: Percentage frequency of symmetrical combination of fingers with middle phalangeal hair

Digital Combination in both hands	Brahmin	Kaibarta
0345	15.00	6.85
0340	2.50	4.11
0300	2.50	—
0040	5.00	2.74
0045	2.50	—
0000	67.50	75.34
Total symmetrical combination	95.00	89.04

may be noted that Kumar (1955), Kumar and Sastri (1961) and Duarah (1985) have reported

high incidence of middle phalangeal hair among the Nocte (45.90%), Rieng (64.10%) and Dirang Monpa (57.50%) as well as Tawang Monpa (72.73%), respectively. The present study shows a lower incidence of bearing of middle phalangeal hair (Brahmin = 32.50% ; Kaibarta = 24.66%) in comparison to other caste populations (Brahmin = 41.73% ; Kalita = 46.41% ; Baishya = 49.29% ; Kaibarta = 54.65%) studied in Assam (Das, 1966).

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