

A Comparative Study on the Dermatoglyphic of *Homos* and Normal Meiteis of Manipur

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Abstract

In the present study, an attempt has been made to find out, if there be any associations in between some feminine Meitei males of Manipur in India who are locally known as "Homo" with the normal Meiteis in respect of few dermatoglyphic parameters. The examination of pattern frequencies of the control and feminine males reveal that the rare type radial loop and arch have the inclination to be more frequent in the feminine males. Interestingly, the feminine males stand in between the males and females of the control in respect of frequency of occurrence of palmar main line formulae as well as in finger patterns.

Introduction

Despite of many limitations, the simplicity of technique, less instrumentation and limited resources promptly led to the development of dermatoglyphic study in India. From its early stage, the study of dermatoglyphics for understanding ethnic variation and genetic investigation have been employing by many anthropologists.

In India, many anthropologists like D.P. Mukherjee, B.M. Das, M.R. Chakravarti, Bhanu, K.C. Malhotra, P. Das Sharma and many other scholars have carried out their academic ordeal to expand the frontier of dermatoglyphic empire.

Regarding dermatoglyphic research in Manipur, it is in its infantile stage. A few works have been carried out by Chakravarti, M.R. and D.P. Mukherji (1962), Singh (1978), Chakravarti, R. (1986), Singh (1992), Kongrailatpam, K. (1993), Singh, L.R. (2002), Singh (2005).

In the present study, an attempt has been made to find out, if there be any associations in between some feminine Meitei males of Manipur who are locally known as "*Homo*" with the normal Meiteis in respect of few dermatoglyphic parameters. The Homos (Feminine Meitei males) are those groups of people who have under-developed masculine features. They have underdeveloped male organs. Their general body structure is apparently feminine. Their facial cut, hands and legs, waist and buttock and specially breast region are similar to that of a female. They have a tendency to behave like a girl/woman. In short, their physical and psychological components are very much inclined to be a female though they have vestigial features of male. That is why they are sometimes referred to as "half-man, half-woman".

The Meiteis are the major community of Manipur (India). They are mongoloid stocks. They speak Manipuri which is a Kuki-chin group of Tibeto-Burman branch of linguistic division.

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Material and Method

The data of the present study are based on finger and palm prints of 35 Meitei feminine males who are compared with 50 males and 50 females of normal Meitei population. Both the experimental and control groups were from Imphal district, Manipur. The data were analysed following the usual scheme of Cummins and Midlo (1961). The present study covers finger dermatoglyphics viz., pattern balls, and palmar prints viz., main line formulae and main line index.

Results and Discussion

Table 1

Percentage Frequencies of Three Galton Types in *Homos (Feminine males)* and Control Group.

Population	Hands	N	Whorl	Loop	Total		Arche
					Radial	Ulnar	
Feminine	Right	175	51.42	2.29	43.43	45.72	2.85
Males	Left	175	47.43	1.71	46.85	48.56	4.00
	R + L	350	49.43	2.00	45.14	47.14	3.43
Control	Right	250	60.00	1.60	37.60	39.20	0.80
Males	Left	250	56.00	1.60	39.20	40.80	1.60
	R + L	500	58.00	1.60	39.20	40.80	1.20
Control	Right	250	42.00	2.00	54.00	54.80	3.20
Females	Left	250	44.40	2.80	46.00	48.80	6.80
	R + L	500	43.2	2.40	50.00	51.80	5.00

From table 1, it is observed that the percentage of whorls among the feminine males (49.43%) is lesser than the control males (58.0%) and higher than the control females (43.2%). On the other hand, the percentage of loops, both radial and ulnar types among the feminine males is more than the control males but less than the control females. The frequency percentage of arches of feminine males (3.43%) is higher than the control males (1.2%) but less than the control females (5.0%). Frequencies of both radial and ulnar loops in feminine males are 2.0% and 45.4% and that of the control males are 1.6% and 39.2% while that of the control females are 2.4% and 50.0% respectively.

The examination of pattern frequencies of the control males and the feminine males reveal that the rare type radial loop and arch have the inclination to be more frequent in the feminine males. It may be also noted that radial loop and arch occur more frequently in the control females. The trend is rare in the control males.

Table2

Wilder's Three Main Line Formulae Found Among the *Homos*(Feminine Males) and the Control in Percentage

Population	Hands	11.9.7.—	9.7.5.--	7.5.5.--	Others	Total
Feminine	Right	25.71	25.71	25.71	22.87	100.00
Males	Left	8.57	28.57	20.00	42.86	100.00
	R + L	17.14	27.14	22.86	32.86	100.00
Control	Right	18.00	28.00	22.00	32.00	100.00
	Left	8.00	28.00	20.00	44.00	100.00
	R + L	13.00	28.00	21.00	38.00	100.00
Control	Right	22.00	38.00	20.00	20.00	100.00
Females	Left	14.00	22.00	30.00	34.00	100.00
	R + L	18.00	30.00	25.00	27.00	100.00
Male + Female	R + L	15.5	29.00	23.00	32.50	100.00

Bilateral Variation : Chi-square = 5.33, d.f. =3. Not Significant

In table 2, the comparison of Wilder's three main line formulae of experimental and control groups are shown. Both the left and right hands of the feminine males display the trend of main line formulae, $9.7.5.-- > 7.5.5.-- > 11.9.7.--$. The same trend is found when the two hands of the feminine males and control males are taken together.

A close examination of table 2 reveals that feminine males do not deviate from the normal Meiteis in respect of the occurrence of Wilder's three main line formulae. The frequency of 11.9.7.-- is 17.14% among the feminine males, whose frequencies among the males and females of the control are 13.0% and 17.5% respectively. In this regard the feminine males stand slightly closer to normal females. The frequency of 9.7.5.-- of the feminine males is 27.14% which is more closer to that of the control males (28.0%) than that of the females (29.0%). In 7.5.5.--, the feminine males take the middle position (22.86%) in between the males (21.0%) and the females (25.0%). When the total values of the control males and females are taken together, it appears that the feminine males exhibit the frequency of palmar main line formulae almost similar with those of the control. In other words, the feminine males stand in between the males and females of the control in respect of frequency of occurrence of palmar main line formulae.

Table 3

Chi-square Values for Bimanual Comparison and Population Variation among *Homos* (Feminine Males) and the Control in respect of Wilder's three Main Line Formulae.

		Chi-square value	P in 2 d.f.	Remarks
Bilateral	Feminine Male X	0.5863	0.90 >P > 0.80	Not Significant
	Control Male			
	Feminine Male X	0.6917	0.90 >P > 0.80	Not Significant
	Control Female			

No significant difference of the two hands of the feminine males in respect of frequency of occurrence of palmar main line formulae is demonstrated (Table 3). It is evident from the table that the feminine males agree with both the control males and females. Therefore, feminine among the males does not significantly exhibit any distinctive frequency occurrence of palmar main line formulae.

Table 4

Main Line Index of the *Homos* (Feminine Male) and Control Groups.

Population	Right Mean ± S.E.	Left Mean ± S.E.	(Right + Left) Mean ± S.E.
Feminine Males	5.56 ± 0.27	7.00 ± 0.16	6.04 ± 0.21
Control Males	7.50 ± 0.29	6.0 ± 0.29	6.69 ± 0.21
Control Females	7.72 ± 0.32	6.30 ± 0.27	6.99 ± 0.22
Control (Male + Female)	7.61 ± 0.21	6.86 ± 0.15	6.86 ± 0.15

Table 4 shows the comparison of main line index of control and experimental groups. From the table it is seen that the mean difference between the right hands (5.83 ± 0.27) and the left hands (7.00 ± 0.16) of the feminine males is marginal. However, it may be noted that the left hand of feminine male

group possesses larger index value than the right hand of the same group. This means that transversality of main line is more on the left hand than on the right hand of the feminine males.

Among the control group, right hand possesses larger index value than the left hand in both sexes. When the mean value of the two hands are considered, females (6.99 ± 0.22) display larger main line index value than males (6.69 ± 0.21).

Another notable feature observed in the table is that feminine males show more transversality of palmar main lines on their left hands than the controls and the reverse is true on the right hand. Taking the mean values of the hands of the feminine male, mean main line index is 6.42 ± 0.22 while that of the control is 6.86 ± 0.15 . That means, feminine males have more longitudinal main line configuration than the controls.

Conclusion

The occurrence of finger pattern in both the hands of feminine males is whorl>Loop>Arch. *Chi-square* value for the bimanual comparison suggest that the two hands of the feminine males is not significantly different. In other words, the two hands agree statistically with each other.

The frequency of whorl (49.43%) in feminine males is higher than the control females (43.2%) but lesser than the control males (58.0%). The frequency of loop in feminine males (47.14%) is lesser than the control females (51.8%) whereas it is higher than the control males (40.8%). The arches of feminine male stands in between the male and the female in control series.

In respect of occurrence of Wilder's three main line formulae, the feminine male stands in between the control male and female. Bimanual comparison of occurrence of palmar main line formulae of the feminine male with control male and female is not statistically significant. It should also be noted that the feminine males occupied middle position in between the control male and female in respect of finger pattern. The occurrences of main line formulae and finger patterns of the Homos in between males and females in the control series, support the common view that these group of people is of 'half man, half woman' and such findings call for a further in deep research work.

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