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THE A—B RIDGE COUNTS OF MIJI, WEST KAMENG, ARUNACHAL PRADESH (INDIA)

ABSTRACT. — The analysis of a—b ridge counts was made among the 55 unrelated (36 males, 19 females) Miji of West Kameng district Arunachal Pradesh (India). The extent of variation was analysed between the sexes but they do not differ statistically. Further, the Miji have also been compared with the other Mongoloid populations of India.

KEY WORDS: Dermatoglyphs — Miji tribe — India.

The relative difference between triradii can be applied for measuring the ridge configuration (Pons 1964). The number of ridges between two triradii seems to be a measure of this separation, and it differs from individual to individual and from hand to hand. Moreover, the degree of differentiation varies considerably according to the hand size of the individual. Fang (1950) classified the a—b ridge count into two different categories basing upon its numbers, viz. the number of ridges when 78 or less, it is "low" category, but when it is more than 78, it is categorised as "high".

Although, a number of studies are available on a—b ridge counts of the Indian population with Mongoloid strain (Bhasin 1966, Dash, Sharma 1966, Tiwari and Bhasin 1969, and others) no such work has yet been carried out among the population groups of north-eastern India. Therefore, in this present paper an attempt has been made to study the aforesaid phenomenon among the Miji of West Kameng district, Arunachal Pradesh (India), considering upon its validity to understand the population variation in micro dimensions.

MATERIAL AND METHODS

The Miji are a scheduled tribe group of West Kameng district, Arunachal Pradesh (India). In the present study 55 unrelated individuals (36 males and 19 females) are taken into consideration. The analysis of the ridge count was made after Holt (1949). The "t" test is used to find out the intergroup differentiation.

RESULTS AND DISCUSSION

The mean a—b ridge count is given in *table 1*. The table reveals that the Miji males show a lower ridge count than the females in both the hands. The pooled range of a—b ridge count in males vary from 52—80 and in females they are 68—88 respectively. This indicates the extent of variation between the sexes. But they do not differ significantly ($t = 1.632$).

TABLE 1. *a-b ridge count among Miji*

	Total No.	Mean a—b ridge count		Total (right + + left) ± S. E.
		right	left	
Males	36	33.78	34.94	68.72 ± 1.14
Females	19	35.95	36.84	72.79 ± 2.21
Total	55	34.52	35.60	70.12 ± 6.67

TABLE 2. *Mean a-b ridge count in different Indian populations*

Population	Sex	Total No.	Total a-b ridge count		% of Low count	Author
			Mean	±SD		
Miji	M	36	68.72	6.86	94.99	Present study
	F	19	72.79	9.66	73.68	Present study
	M + F	55	70.20	7.51	87.27	Present study
Bhutanese	M	74	70.19	9.38	—	Bhasin '66
	F	17	66.83	9.02	—	Bhasin '66
	M + F	91	68.57	—	—	Bhasin '66
Ladakhis	M	54	80.25	11.22	42.59	Dash Sharma '66
	—	—	—	—	—	
	—	—	—	—	—	
Tibetan	M	172	76.78	14.10	58.72	Tiwari & Bhasin '69
	F	176	77.46	11.90	56.25	
	—	—	—	—	—	

The mean a—b ridge counts of the Miji were compared with other Mongoloid ethnic groups of India *(Table 2)*. They were compared statistically *(Table 3)* to find out the nature of concordance. From table 2 it is found that Miji males show a lower ridge count than other male populations with Mongoloid ethnic strain while the females stand in between the groups. The percentage of low ridge count is appreciably higher in both sexes as compared to that of the sexes of other population groups *(Table 2)*.

TABLE 3. *Intergroup differences*

	"t" values
Bhutanese males × Miji males	0.930
Ladakhis males × Miji males	6.046*
Tibetan males × Miji males	5.137*
Bhutanese females × Miji females	1.914
Tibetan females × Miji females	1.953

* *Significant at 0.05 level of P*

The "t" test has been applied to evaluate the intergroup differences (c. f. *Table 3*). From the table it has been observed that Miji males differ statistically from Ladakhis and Tibetans, while they show some conformity when compared with Bhutanese males. The other sex of the Miji does not differ from the Bhutanese and Tibetans. The discrepancy between the Miji males and Ladakhis as well as Tibetans presumably occured due to population differentiation. The similarities are a chance factor here. Because, when a population differs the chance differentiation of character cannot be ignored. Therefore, it is presumed that the a—b ridge count cannot be used as a parameter for major population differentiation but it can be used as a tool to identify the isolated groups.

SUMMARY

The a—b ridge counts of 55 Miji (36 males and 19 females) were analysed to find out the relative difference between the sexes. They do not differ statistically.

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