

atd Angle Variation Among Three Endogamous Groups of Chattisgarh, Madhya Pradesh

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KEY WORDS Dermatoglyphics. *atd* angle. Endogamous Groups.

ABSTRACT The present paper reports inter-group variations with respect to *atd* angle among three endogamous groups of Chhattisgarh (Madhya Pradesh) viz. Satnamis, Telis and Halbas.

INTRODUCTION

Galton (1892) is considered the father of dermatoglyphics who developed it into an established science with standardised methods and techniques of obtaining and classifying data. Thereafter Cummins and Midlo (1943) proposed methodology, which has been widely used in dermatoglyphics studies. Penrose (1949) used the *atd* angle for populations variation studies.

Dermatoglyphic characters have shown great variations in different populations and therefore these have been used as research tools in the field of Physical Anthropology and Human Genetics.

The aim of this study is to investigate inter

group variation with respect to *atd* angle among three endogamous groups of Chattisgarh in Central Indian State of Madhya Pradesh.

MATERIAL AND METHODS

Bilateral palmer prints were obtained from both the sexes of three endogamous groups of Chattisgarh (Madhya Pradesh) viz. Satnamis (260 male, 234 female), Telis (251 male, 260 female) and Halbas (273 males, 248 females).

The *atd* angle was measured following Penrose (1949, 1954). For this, two straight lines were drawn from *a* and *d* triradii to axial triradius and angle formed at "*t*" by an *a* and *d* triradii was measured.

RESULTS AND DISCUSSION

Table 1 shows mean, standard deviation and coefficient of variation with their respective standard errors of the *atd* angle among three investigated endogamous groups of Chattisgarh. It is observed from this table that there are lit-

Table 1 : Mean *atd* angle among three endogamous groups of Chattisgarh

Population/ side	Males			Females		
	Mean ± S.E.	S.D. ± S.E.	C.V. ± S.E.	Mean ± S.E.	S.D. ± S.E.	C.V. ± S.E.
<i>Satnami</i>						
Right	40.78±0.32	5.08±0.22	12.48±0.54	41.46±0.40	6.09±0.28	14.69±0.66
Left	40.28±0.32	5.13±0.22	12.74±0.55	41.93±0.42	6.35±0.29	15.14±0.58
Right + Left	40.49±0.33	5.25±0.23	12.96±0.56	41.78±0.41	6.27±0.29	15.04±0.67
<i>Teli</i>						
Right	40.90±0.41	6.50±0.29	15.51±0.68	42.17±0.42	6.73±0.30	15.96±0.68
Left	41.79±0.35	5.55±0.25	13.28±0.58	41.68±0.34	5.45±0.24	13.68±0.56
Right + Left	45.52±0.38	6.02±0.27	13.22±0.58	41.93±0.39	6.23±0.27	14.85±0.64
<i>Halba</i>						
Right	40.58±0.24	4.58±0.20	11.29±0.48	42.21±0.36	5.72±0.26	13.55±0.60
Left	40.84±0.33	5.44±0.23	13.22±0.56	42.05±0.39	6.09±0.27	14.48±0.64
Right + Left	40.72±0.33	5.37±0.23	13.19±0.54	42.17±0.54	5.97±0.27	14.16±0.63

tle difference between mean values of both (right and left) the sides, except Teli males. The mean values of *atd* angle are higher in right hand than the left among both the sexes except among Halba males and Satnami females. The *atd* angle shows highest mean value in Teli males (45.52 ± 0.38) and lowest in Halba males (40.72 ± 0.33). The incidence of magnitude of mean value of *atd* angle is Telis > Satnamis > Halba among male samples, and Halba > Telis > Satnamis among female samples. The t-test reveals non-significant bilateral differences, the sex differences among these groups are significant. Significant intergroup differences have

been observed between Teli and Satnami as well as Teli and Halba male samples for the distribution of *atd* angle among the present population groups.

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