

BRIEF COMMUNICATIONS**An Anthropogenetic Study of the Jats of Haryana, India**J.S. Yadav¹ and M.M. Gupta²*1. Human Genetics Unit, Department of Zoology, Kurukshetra University, Kurukshetra 132 119, India**2. Department of Clinical Biochemistry, P.G.I.M.E.R., Chandigarh 160 014, India.***KEY WORDS** Jat. Anthropogenetic Traits. Haryana.

ABSTRACT In the present study genetic traits - ABO and Rh blood groups; morphological traits - chin shape, ear lobe attachment, mid-digital hair, and behavioural traits - hand clasping, arm folding, leg folding among 106 Jat individuals of both sexes have been reported. Although various traits differ slightly, when compared, but in general fall in the range of other population groups reported from North India.

The Jats constitute the major community in the State of Haryana. There are sporadic reports on blood groups in Jats (Khurana, 1956; Das et al., 1978; Malik et al., 1988; Kushwaha, 1990a, b), whereas any comprehensive study with regard to various other genetic markers in different ethnic groups of Haryana is simply lacking. An attempt has been made to report eight anthropogenetic traits among the Jats of Haryana in the present paper.

MATERIALS AND METHODS

The data for the present study were obtained from 106 Jat individuals of both sexes (Males - 63, Females - 43) of village Khrnich in district Kurukshetra (Haryana) in November, 1987. Each subject was examined for ABO and Rhesus blood groups, chin shape; ear lobe attachment, mid-digital hair distribution, hand clasping, arm folding and leg folding. The standard techniques were used for typing the blood groups and for examining the morphological and behavioural traits.

RESULTS AND DISCUSSION

The B gene frequency of ABO blood groups shows a high frequency (27.0 per cent) as com-

pared to A (19.2 per cent) as observed among most of the population groups reported from North India and fall closer to the Jats of Delhi and Haryana (Das et al., 1978; Malik et al., 1988; Kushwaha et al., 1990a,b). Among all the subjects of the present study Rhesus blood group (D) is observed positive (Table 1) whereas the studies reported among the population groups of North India, the Rhesus negative is observed about 10 per cent.

The morphological and behavioural traits have been categorised according to sex and it is observed that the sex differences are not significant in all these traits except for shape of the chin and mid-digital hair. The frequency of round chin shape is high (56.6 per cent) followed by dimple (29.2 per cent) and cleft (14.2 per cent). A high frequency of attached ear lobe (35.8 per cent) is observed in the present study as compared to that reported on the Jats of Rohtak (23.9 per cent) by Malik et al. (1988) and Jats of Delhi (18.7 per cent) by Chattopadhyay (1968). The frequency of mid-digital hair is observed 73.60 per cent in the present study which is higher than Jats of Rohtak. The frequencies of behavioural traits - hand clasping, arm folding and leg folding show R-type more than L-type and similar pattern has been reported among Jats of Rohtak.

Table 1: Distribution of genetic traits among Jats of Kir-much (Haryana)

Phenotype	No.	Per cent	Gene	Frequency		
A. Blood Groups Systems						
1. ABO						
A	26	24.5	A	19.2		
B	39	36.8	B	27.0		
O	31	29.3	O	53.8		
AB	10	9.4				
Total	106	100.0		100.0		
2. Rhesus						
D	106	100.0	D	100.0		
d	0	0.0	d	0.0		
Total	106	100.0		100.0		
B. Morphological Traits						
1. Chin shape						
Round	28	26.4	32	30.2	60	56.6
Dimple	23	21.7	8	7.5	31	29.2
Cleft	12	11.3	3	2.8	15	14.2
Total	63	59.4	43	40.5	106	100
2. Ear Lobe Attachment						
Attached	25	23.6	13	12.2	38	35.8
Free	38	35.8	30	28.3	68	64.2
Total	63	59.4	43	40.5	106	64.2
3. Mid-digital Hair						
Present	58	54.7	20	18.9	78	73.6
Absent	5	4.7	23	21.7	28	26.4
Total	63	59.4	43	40.6	106	100.0
C. Behavioural Traits						
1. Hand clasping						
Right 'R'	34	32.1	24	22.6	58	54.7
Left 'L'	29	27.4	19	17.9	48	45.3
Total	63	59.5	43	40.5	106	100
2. Arm Folding						
Right 'R'	33	31.1	21	19.8	54	50.9
Left 'L'	30	28.3	22	20.8	52	49.1
Total	63	59.4	43	40.6	106	100
3. Leg Folding						
Right 'R'	45	42.5	29	27.4	74	69.9
Left 'L'	18	16.9	14	13.2	32	30.1
Total	63	59.4	43	40.6	106	100.0

From the above study, it may be evaluated that the Jats of the present study are falling nearer to Jats reported by other investigators, however, the studies reported from Haryana are a few to draw any conclusion at present.

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