

BRIEF COMMUNICATIONS

Blood Groups of Khasa Brahmans of Jaunsar-Bawar, Uttar Pradesh

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ABSTRACT The blood groups ABO, MN, Rhesus and secretor status have been studied in 100 unrelated individual of Khasa Brahmans—a Scheduled Tribe of Jaunsar-Bawar of Uttar Pradesh. The distribution of gene frequencies of the blood groups among them show similarities with other population groups of Central Himalaya.

In this study, an attempt has been made to report Khasas (Brahman)—a Scheduled Tribe of Jaunsar-Bawar of Dehradun District of Uttar Pradesh for the incidence of blood groups ABO, MN, Rhesus and secretor status.

MATERIAL AND METHODS

The samples from 100 Khasa Brahmans, who were unrelated were collected from Nagathal, Chakratha of Dehradun District of Uttar Pradesh. The samples were analysed for A₁, A₂, BO, MN, Rhesus and secretor status using standard antisera (Anti -A, -A₁, -B, -AB, -H, -M, -N, -C, -D, -E, -c and -e) with adequate controls. The frequencies were calculated after Mourant et al. (1976).

RESULTS AND DISCUSSION

In the Himalayan region, the frequency of gene A is quite high as compared to gene B in the eastern part, whereas gene B is generally high in the Western and Central region than gene A. In the present population the frequency of gene B is higher than A—a trend which is common in other Central Himalayan population groups. For the secretor status, a few studies are available from the Himalayan region, where the frequency

for gene Se varies from 0.336 to 0.676. From the Eastern Himalaya, generally high frequency of gene Se is observed (range 0.422 to 0.676) as compared to Central (varies from 0.556 to 0.576) and Western Himalayas (0.336 to 0.639). In the present population, the gene Se frequency is 0.510 which falls closer to Western and Central population groups. In the MN blood groups, the frequency of gene M is low in the Western (varies from 0.510 to 0.669) and Central Himalayas (range 0.551 to 0.753) than Eastern Himalayas (range 0.500 to 0.890) and the present population with frequency of gene M 0.510 shows similarities with Western and Central Himalayan population groups. For the Rhesus system, the frequency of CDe is low (range 0.438 to 0.779) and cde is high (varies from 0.003 and 0.281) in the Western and Central Himalayas as compared to the Eastern Himalayan population groups where CDe varies from 0.524 to 0.875 and cde ranges from 0.000 to 0.216. The frequency of CDe is 0.508 and cde 0.094 in the present population and similar trend is observed in Western and Central Himalayas. It may be evaluated that the Khasa Brahmans of Jaunsar-Bawar show the incidence of ABO, secretors and non-secretors, MN, Rhesus blood group frequencies similar to that observed among the population groups of Western and Central Himalayas.

Table 1: The frequencies of blood groups among Khass Brahmins of Jaunsar-Bawar of Dehradun District, U.P.

Blood Group/ Phenotypes	No. observed	Genel Chromosome	Frequency
ABO System			
O	22	A_1	0.219
A_1	24	A_2	0.026
A_2	0	B	0.316
B	35	O	0.443
A_1B	15		
A_2B	4		
Total	100		1.000
Secretors and Non-Secretors			
Secretors	76	Se	0.316
Non-Secretors	24	se	0.490
Total	100		1.000
MN System			
M	29	M	0.530
MN	48	N	0.470
N	23		
Total	100		1.000
Rhesus System			
CCDEe	1		
CCDee	22		
CcDEE	2		
CcDEe	24		
CcDee	30	CDE	0.012
CcddEE	1	CDe	0.508
CcddEe	1	cDE	0.143
ccDEE	2	cDe	0.153
ccDEe	10	cdE	0.073
ccDee	5	cde	0.107
ccddEe	1		
ccdde	1		
Total	100		1.000

REFERENCE

- Mourant, A.E., Kopec, A.C. and Domaniewska-Sobczak, K.: *The Distribution of the Human Blood Groups and Other Polymorphisms*. Oxford University Press, London (1976).