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ABO BLOOD GROUPS AMONG THE KOCH POPULATION OF BRAHMAPUTRA VALLEY, ASSAM

ABSTRACT — *The paper reports the results obtained from the study of the distribution of ABO blood groups of the Koch, a major detribalized caste group of Assam. The study reveals that gene O is more frequent (62.15%) in comparison to A (20.04%) and B (17.81%). The Koch population is compared with some tribal populations, who form their ancestral stock and also with population groups of almost equivalent caste status in the light of their ethnic affiliation.*

KEY WORDS: ABO blood groups — Koch — Detribalization — Brahmaputra valley — Assam — India.

INTRODUCTION

The Koch population who is synonymous with Rajbansi, form one of the largest caste group of Assam. Today they are widely distributed over most of the plain districts of Assam. However, a heavy concentration is observed in the districts of Kamrup and Goalpara.

According to Waddel (1901) the term Koch has become more of a caste title than a tribal appellation, so that individuals of the Kachari, Garo Rabha, Lalung and allied Indo-chinese tribes are admitted as members'. Gait (1905) comments 'In Assam proper, it (the word Koch) has become the name of a Hindu caste, into which are received the converts to Hinduism from the ranks of the Kachari, Lalung, Mikir and others tribes'. Therefore, in the present context of Assam, 'the term Koch is applied in various senses to indicate various groups of Assam some of which are now full fledged members of the Hindu society, even raising themselves to a high status in the caste hierarchy (Mazumder, 1972)'. They have been described as one of the "race caste" (Allen, 1905) of Assam who generally claim to be an "outlying branch of the Kshatriya (Risley, 1915)". Scholars also differ in opinion with regard to the affinity of the Koch as some

of them (Dalton, 1872, Risley, 1891) hold this group to have Dravidian origin while others (Waddel, 1901; Haddon, 1924; Das, 1962) are inclined to postulate Mongoloid descent for them. But whatever may have been racial affinities of the original Koch population, there can be no doubt that the present Koch population of Assam belong to the 'Mongolian' rather than to the 'Dravidian' stock (Sengupta, 1982).

From the above discussion there hardly remains any doubt of the fact that the Koch (Rajbansi) population forms a major detribalized group. It is not known from which time the process of conversion started, but it has not stopped. It is a continuative one i.e. ongoing process. It is a fact that major part of conversion took place following the preaching of Vaishnavite cult by Srimanta Sankardeva, a socio-cultural reformer and a religious preacher of Assam during 15th century A. D.

MATERIAL AND METHOD

The present paper deals with the distribution of ABO blood groups among the Koch population. The analysis for ABO blood groups was based on 527 individuals of both sexes from five different

districts, viz. Goalpara, Kamrup, Darrang, Nowgong and Dibrugarh of Brahmaputra valley, Assam. Standard procedures were followed in the identification of A, B and O antigens with the help of sera procured from the Haffkine Institute and M/S Decruze Corporation, Bombay. Gene frequencies were calculated according to the formulae suggested by Mourant (1954) and necessary corrections were also made (Bernstein, 1930).

RESULTS AND DISCUSSION

Results of ABO blood group system are shown in Table 1. The Koch people show a very high frequency (62.0%) of gene O. The frequency of gene A (20.0%) exceeds the frequency of gene B (18.00%), a common situation found in most of the mongoloid populations of Northeast India (Das, 1968). Chi-square value for goodness of fit being non-significant in the sample ($\chi^2 = 2.9959$, 1 d.f., $0.10 > p > 0.05$) indicates that the sample is homogeneous in nature.

TABLE 1. ABO blood groups of the Koch population

Phenotypes	Observed		Expected number	Gene frequencies
	No.	Percentage		
O	197	37.38	203.56	$p = 0.2004$ $q = 0.1781$ $r = 0.6215$
A	160	30.36	152.46	
B	141	26.76	133.37	
AB	29	5.50	37.62	

$$\chi^2 = 2.9959, 1 \text{ d.f.}; 0.10 > p > 0.05$$

Regarding the origin of the Koch it has already been mentioned that the people of different tribal groups like the Rabha, Garo, Kachari, Lalung, Mikir after conversion to Hinduism are known as Koch population and are given a place in the caste complex of the Hindu society. Therefore, with this background it will be of great interest to examine how much the Koch sample deviates from the so-called ancestral

population and also to examine the position of the Koch caste with respect to the population groups of almost equivalent caste status distributed in different parts of the state.

Among the ancestral tribal population, ABO blood grouping of the Rabha was done by Das (1960 and 1981). The same author examines the Garo (1981) also. The Kachari sample was collected by Phookan (1975) and Das (1981) and the Lalung was again examined by Das et al. (1980a). The Mikir were blood grouped by Chakravarty (1976), Deb (1979) and Das (1981). The caste population that has been included in the present study represents most of the important lower castes of Assam, so far anthropologically studied. The caste groups are the Baishya (Das et al., 1973), Hira, Jogi Kumar and Kaibarta (Das et al. 1980b).

ABO phenotype frequencies of the Koch and other population groups have been presented in Table 2. When comparison is made between the Koch sample and their ancestral (tribal) population, it is observed that the Koch sample differs significantly from almost all of them chiefly in their high phenotype O and low AB in comparison to the tribal population. Exception is limited only to the Lalung. It is also evident from chi. square values that the Koch population shows close statistical affinity with Jogi, Baishya and Kaibarta castes of Assam. However, they are very different from the Hira, Kumar and Keot who deviate significantly from the Koch sample because of their raised phenotype O, B and AB respectively at the expense of A phenotype in most of the cases.

A pooled sample of tribes and lower castes are compared with Koch sample to have a comprehensive picture about their relative position in respect of ABO blood group system. It appears, with regard to frequency distribution of ABO blood groups, that the Koch population differs significantly from the tribe but resemble the lower caste.

This result, as it is based on a single system of blood groups, does not permit us to make any definite statement. It points to the necessity of taking a systematic study involving some more characters.

TABLE 2. ABO phenotype frequencies: The Koch and other population groups

Population	Sample size	Percentage phenotype frequencies				Gene frequency			Chi-square values
		O	A	B	AB	p	q	r	
Koch	527	37.38	30.36	26.76	5.50	0.2004	0.1781	0.6215	—
Rabha	726	25.34	32.23	30.16	12.26	0.2551	0.2413	0.5035	30.919
Garo	144	25.69	29.86	32.64	11.81	0.2364	0.2557	0.5078	12.387
Kachari	532	28.76	25.94	32.89	12.41	0.2136	0.2590	0.5273	25.197
Lalung	94	29.79	32.98	31.91	5.32	0.2179	0.2110	0.5708	2.220
Mikir	414	28.99	30.68	33.09	7.25	0.2144	0.2306	0.5550	9.131
Pooled tribe	1,910	27.33	30.00	31.83	10.84	0.2313	0.2433	0.5254	29.765
Jogi	411	43.79	25.55	26.28	4.38	0.1636	0.1679	0.6684	4.854
Baishya	145	48.28	22.76	24.83	4.14	0.146	0.158	0.696	6.247
Kaibarta	532	32.14	28.57	31.20	8.08	0.2049	0.2217	0.5733	6.774
Hira	266	47.37	20.68	24.81	7.14	0.1495	0.1739	0.6903	11.480
Kumar	202	34.16	21.78	41.09	2.97	0.1346	0.2559	0.6090	15.968
Keot	128	35.16	25.00	23.44	16.40	0.2284	0.2185	0.5523	17.620
Lower caste	1,684	39.25	25.00	29.04	6.71	0.2004	0.1781	0.6216	6.393

However, this finding is in conformity with that of Das (1962). He observed that the Rajbansi (Koch) population of Assam were more similar to the Suri, a lower caste group of Assam than to the tribes like the Garo, Kachari and Rabha who form the parental stock. Therefore, one may perhaps infer from the present study that not only socioculturally but also biologically the Koch population has been separated from its tribal ancestral stock and has become a part of the Assamese caste population.

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