

ABO and Rh (D) Blood Groups Among the Telugu Speaking Fishing Community of Andhra Pradesh

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Anthropologists have used ABO and Rh blood group systems for the determination of frequencies of blood group alleles in human populations and with the help of these they have not only attempted the analysis of the history of populations but also used them to study the action of natural selection. Further, blood group systems are useful in determine the genetic variation within and between the populations. During the last four decades, numerous studies have been carried out on the genetic composition of various endogamous population groups in India (Bhasin et al., 1992;1994). However, genetic studies among fishing communities in India are very limited. Hence, in the present study the distribution of ABO and Rhesus blood groups has been reported among the Telugu speaking marine fishing community of coastal Andhra Pradesh.

MATERIALS AND METHODS

The blood samples were drawn from randomly selected 92 unrelated individuals of both the sexes from Kavali Revenue division of Nellore District, Andhra Pradesh.

RESULTS AND DISCUSSION

The frequency distribution of ABO phenotypes with gene frequencies are presented in table 1. It is clear from the table that O phenotype has the highest frequency (45.65%) followed by B (32.60%), A (15.21%) and AB (6.52%). The overall picture of phenotypic frequencies of ABO blood groups is O>B>A>AB. The decreasing order of allele frequency in Fishermen is O

Table 1: Percentage distribution of ABO phenotypes and allele frequencies

Phenotypes	Observed number	%	Allele frequency
A	14	15.21	A = 0.1155
B	30	32.60	B = 0.2199
O	42	45.65	O = 0.6756
AB	6	6.52	
Total	92	100.00	A+B+O =1.000

D/σ = 1.130

Table 2: Percentage distribution of Rh(D) phenotypes and allele frequencies

Phenotypes	Observed number	%	Allele frequency
Rh +ve	85	92.39	D = 0.9239
Rh -ve	7	7.60	d = 0.0760
Total 92	100.00		1.0000

(0.6756)> B (0.2199) and A (0.1155). The table also shows the distribution of observed and expected percentage frequencies of ABO Phenotypes. The population under study is in genetic equilibrium and any observed fluctuations are due to chance alone. In case of Rh (D) blood groups 92.39% were positive and 7.60% were negative. The allele frequencies being 0.9239 for D and 0.0760 for d (Table 2).

ACKNOWLEDGMENTS

The authors are grateful for the financial support given by the UGC, New Delhi, under Special Assistance Programme to the Department of Anthropology, Sri Venkateswara University, Tirupati.

KEY WORDS Blood Groups. Genetic Variation. Fishermen

ABSTRACT In the present study the blood samples of 92 unrelated subjects of the Telugu speaking fishing community of coastal Andhra Pradesh were analysed for ABO and Rh (D) blood groups. The overall picture of ABO percentage is O (45.65%)> B (32.60%)>A (15.21%)> AB (6.52%). The frequency of Rh+ve (92.39%) is more than Rh-ve (7.60%).

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