

ABO and Rh (D) Blood Group Distribution among Rangrez of North Coastal Andhra Pradesh

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ABSTRACT A total number of 327 Rangrez individuals of Srikakulam and Vizianagaram Districts were studied for the distribution of ABO and Rh (D) blood groups. It is observed that the allele frequencies of blood group ABO are $A=0.1884$, $B=0.2913$, $O=0.5203$ and for Rhesus system $D=0.7466$, $d=0.2534$. The present study when compared to other caste groups reported from Andhra Pradesh fall closer to these groups.

INTRODUCTION

Several studies from the last few decades were conducted on various tribal and caste groups to understand inter and intra population variation. In India it is found that frequency of allele ABO^*B is greater than ABO^*A except the Eastern Himalayan Region (Bhasin and Walter, 2001). Among caste groups of Andhra Pradesh Rhesus negative is present among most of them (Naidu et al. 1990). In the present study an attempt has been made to understand the distribution of ABO and Rhesus Blood Groups in Rangrez community.

MATERIAL AND METHODS

The present study was carried on Rangrez Community of North Coastal Andhra Pradesh. Rangrez is an urban community, speaks Marathi. They follow Hindu religion. They practice strict endogamy (Singh 2003). Rangrez are traditionally weavers and dyers (Thurston 1909).

A total of 327 samples were collected. Preferential sampling method was followed. As the population is very small, all the available individuals were observed for ABO and Rh. Blood samples were analysed after Race and Sanger (1962). The allele frequencies were calculated after Mourant et al. (1976)

RESULTS AND DISCUSSION

From Table 1 it is observed that the phenotype frequency of B is highest (36.38%) followed by O (25.38), A (21.72) and AB (16.51). The allele frequencies of blood group ABO are $A=0.1884$, $B=0.2913$, $O=0.5203$.

In India it is found that frequency of allele ABO^*B is higher than ABO^*A (Bhasin and Walter 2001). In the present study frequency of allele B is high as compared to allele A and similar observations are reported among the caste groups from Andhra Pradesh (Naidu et al. 1990; Bulliyya and Ramachandraiah 1999; Papa Rao et al. 2003; Reddy and Reddy 2003; Chandrasekhar Reddy et al. 2005; Reddy et al. 2013).

The present study results for Rh^*d and Rh^*D alleles 0.2534 and 0.7466 falls well in the range in the studies reported from Andhra Caste populations (Table 1). as reported among Gollas (Rh^*d

Table 1: The phenotypic frequency distribution of ABO and Rh ($\pm D$) blood groups among Rangrez of North Coastal Andhra Pradesh

Blood group	Pheno types	Observed number	Percentage	Allele frequency
ABO	A	71	21.72	$A=0.1884$
	B	119	36.39	$B=0.2913$
	AB	54	16.51	$O=0.5203$
	O	83	25.38	
	Total	327	100.00	
Rh	Positive	306	93.58	$D=0.7466$
	Negative	21	6.42	$d=0.2534$
	Total	327	100.00	

allele 0.3332) (Narahari and Deepkumar 1980), Kamma (*Rh**d allele 0.4243) (Naidu et al. 1990) and among others.

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