

ABO and Rh(D) Blood Groups Among the Adikarnatakas of Karnataka

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INTRODUCTION

The Adikarnatakas are distributed in almost all parts of the Karnataka state. They occupy the lowest status in the Hindu caste hierarchy and mainly depend on agricultural works of the higher caste groups. They also work as field labourers, day labourers, grass cutters, coolies and village servants, they beat their drums at the occasions of marriages, festivals feasts etc. Majority of the Adikarnatakas are illiterates; only a few of them are educated due to their poor economic conditions. In Adikarnatakas family is generally nuclear, patriarchal, parilineal and

individuals. The samples were typed for the ABO and Rh(D) blood groups by the serological methods of Race and Sanger (1962).

RESULTS AND DISCUSSION

The results of the analysis of the ABO blood groups are summarised in table 1. The blood group O was the most prevalent type (40.26%), followed by B (35.26%) and A (17.12%). The incidence of the *A*, *B* and *O* alleles was found to be 0.1310, 0.2425 and 0.6265 respectively. The Chi-square value (0.41) as well as D/σ value (lower than ± 2) indicate that this caste is in Hardy-Weinberg equilibrium for the ABO blood groups.

The phenotype and allele frequencies of the Rh(D) blood groups are presented in table 3 which reveals that only 3.16 percent of the individuals studied were Rh(D) negative and *d* allele frequency was 0.1778.

KEY WORDS Scheduled Caste. Adikarnatakas. Mysore.

ABSTRACT Data are presented on frequency distribution of the ABO and Rh(D) blood groups among the

Table 1: Distribution of the ABO blood groups among the Adikarnatakas

Phenotypes	Observed number	Expected number	Allele frequencies
O	153 (40.26)	149.15	<i>A</i> = 0.1310
A	65 (17.12)	68.90	<i>B</i> = 0.2425
B	134 (35.26)	137.81	<i>O</i> = 0.6265
AB	28 (7.36)	24.14	
Total	380 (100.00)	380.00	1.0000

Figures in parantheses are percentages

Table 2: Distribution of the ABO blood groups in some Karnataka population

Population	ABO Blood groups				ABO Allele frequency		
	<i>O</i>	<i>A</i>	<i>B</i>	<i>AB</i>	<i>A</i>	<i>B</i>	<i>O</i>
Adikarnatakas	153 (40.26)	65 (17.12)	134 (35.26)	28 (7.36)	13.10	24.25	62.65
Brahmins	17 (58.62)	2 (6.90)	9 (31.30)	1 (3.45)	4.41	18.29	77.29
Siddi - Christian	56 (44.80)	21 (16.80)	40 (31.03)	8 (6.40)	12.30	21.40	66.20
Betta - Kurubas	33 (49.25)	11 (16.42)	17 (25.37)	6 (8.96)	13.43	18.70	67.86
Soligas	40 (39.22)	27 (26.47)	28 (27.45)	7 (6.86)	18.30	19.85	61.85

Figures in parantheses are percentages

patrilocal. Early marriages are common, particularly among the females.

MATERIALS AND METHODS

A total of 380 blood samples was collected from unrelated male and female Adikarnataka

Table 3: Distribution of the Rh(D) blood groups among the Adikarnatakas

Phenotypes	Numbers observed	Percentage observed	Allele frequencies
Rh(D) +	368	96.84	<i>D</i> = 0.8222
Rh(D) -	12	3.16	<i>d</i> = 0.1778
Total	380	100.00	1.0000

Adikarnatakas, a Scheduled Caste Population of Mysore City in Karnataka State. In the ABO blood group system O group recorded the highest incidence, followed by B group. The incidence of Rh(D) 3.16%, which is in agreement with the majority of the other caste as well as tribal population of this south Indian state.

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