

BRIEF COMMUNICATION

Further Data on ABO and Rhesus Blood Groups Among Andhra Populations

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ABSTRACT Distribution of ABO blood groups among eleven tribes and seven castes and Rh(D) among eight tribes and four caste populations from Andhra Pradesh are reported. Tribes record higher frequency of A group than B, while a reverse trend is observed among castes. The lower frequencies of Rh(D) negative type are observed among tribes as compared to caste groups.

INTRODUCTION

The present paper reports further data on the incidence of ABO blood groups among eleven tribes and seven castes and Rhesus blood groups among eight tribes and four castes from Andhra Pradesh. Tribes inhabiting the hilly eastern ghats and the caste populations spread over the north coastal plain area are investigated.

MATERIAL AND METHODS

Blood samples from unrelated adults are collected and are typed using standard antisera with adequate controls. The frequencies are calculated after Mourant et al. (1976). The tribes namely Bagatha, Konda Dora, Nooka Dora and Parangi Poraja from Visakhapatnam agency, Jatapu and Savara from Srikakulam agency, Konda Kammara, Konda Reddy and Valmiki from East Godavari and Visakhapatnam agency areas are surveyed. The Manne Dora tribe is studied from Visakhapatnam plain area. Majority of tribes except Konda Kammara and Valmiki converse in their own dialect in addition to Telugu, while all castes except Relli speak Telugu. Rellis speak corrupt form of Oriya. All the tribal populations are confined to certain pockets on the eastern ghats with limited movement. The castes namely Brahmin, Kamma, Golla, Relli and Wada Balija

from Visakhapatnam plains and Kapu and Devanga from East Godavari plains are investigated. The sample size of each population is listed in Tables 1 and 2.

RESULTS AND DISCUSSION

Blood group A records higher value than B group among seven tribes and one caste, While B group exhibits higher frequency than A among four tribes and six castes (Table 1). It is worth mention here that Andhra tribes with their higher frequency of A group, significantly ($p < 0.001$) differ from castes, who exhibit lower A incidence. It is interesting to note that the blood group O exhibits lesser value than A and B among three tribes, but among all the caste populations O records higher value than A or B groups. It is pointed out here that, the higher incidence of A among tribes is at the cost of O group.

The Rh(D) negative group is absent among Jatapu, Nooka Dora and Parangi Poraja tribes, while the highest frequency recorded so far in tribes is 5.52 per cent among Konda Kammara (Table 2). All the castes exhibit relatively higher frequencies of Rh (D) negative group and the highest was reported among Kamma (11.3%). The mean Rh (D) negative among tribes and castes of Andhra Pradesh are 1.89% and 7.23% respectively.

Table 1: Distribution of ABO Blood Groups Among Andhra Populations

S.No.	Population	Sample Size	Phenotype				Gene Frequency			D/σ
			O	A	B	AB	A	B	O	
A. TRIBES										
1.	Bagatha	619	162	185	196	76	0.2392	0.2510	0.5098	0.2597
2.	Jatapu	443	223	119	77	24	0.1763	0.1208	0.7029	1.3820
3.	Konda Dora	578	155	163	181	79	0.2359	0.2564	0.5077	1.3940
4.	Konda Kammara	360	138	104	95	23	0.1960	0.1806	0.6234	0.6155
5.	Konda Reddy	251	104	76	54	17	0.2063	0.1529	0.6408	0.3097
6.	Koya Dora	639	281	174	140	44	0.1876	0.1556	0.6568	1.3111
7.	Manne Dora	119	40	41	33	5	0.2199	0.1775	0.6025	1.8081
8.	Nooka Dora	156	34	27	79	16	0.1496	0.3765	0.4739	0.5183
9.	Parangi Poraja	172	36	62	63	11	0.2482	0.2522	0.4996	3.2313*
10.	Savara	318	158	101	47	12	0.1972	0.0975	0.7053	0.7743
11.	Valmiki	355	113	112	85	45	0.2504	0.2017	0.5478	1.9022
Tribes (Total)		4010	1444	1164	1050	352	0.2109	0.1930	0.5961	1.7656
B. CASTES										
12.	Brahmin	474	218	121	115	20	0.1623	0.1547	0.6830	0.9352
13.	Devanga	120	46	10	62	2	0.0516	0.3189	0.6295	1.2422
14.	Golla	408	230	56	100	22	0.1000	0.1615	0.7385	2.7499*
15.	Kamma	506	230	87	162	27	0.1197	0.2082	0.6722	0.4200
16.	Kapu	306	156	66	75	9	0.1316	0.1487	0.7197	1.0073
17.	Relli	215	95	30	79	11	0.1003	0.2372	0.6626	0.3003
18.	Wada Balija	309	167	36	88	18	0.0909	0.1879	0.7212	2.6237*
Castes (Total)		2338	1142	406	681	109	0.1168	0.1860	0.6972	0.7859

* Significant $p < 0.01$

Table 2: Distribution of Rh (D) Blood Group among Andhra Populations

S.No.	Population	Sample Size	Phenotype		Gene Frequency	
			Rh positive	Rh positive	'D'	'd'
A. TRIBES						
1.	Bagatha	331	328	3	0.9048	0.0952
2.	Jatapu	260	260	0	1.0000	0.0000
3.	Konda Dora	554	546	8	0.8798	0.1202
4.	Konda Kammara	326	308	18	0.9650	0.2350
5.	Koya Dora	411	398	13	0.8222	0.1778
6.	Manne Dora	116	114	2	0.8687	0.1313
7.	Nooka Dora	156	156	0	1.0000	0.0000
8.	Parangi Porja	172	172	0	1.0000	0.0000
Tribes (Total)		2326	2282	44	0.8625	0.1375
B. CASTES						
9.	Brahmin	473	437	36	0.7241	0.2759
10.	Golla	363	344	19	0.7712	0.2288
11.	Kamma	345	306	39	0.6638	0.3362
12.	Relli	215	208	7	0.8196	0.1804
Castes (Total)		1396	1295	101	0.7310	0.2690

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