

Some Anthropogenetic Traits in the Kachchi of Sagar, Madhya Pradesh

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ABSTRACT The present paper deals with the frequency of some genetic (PTC taste sensitivity), morphological (earlobe attached) and behavioural (handedness, arm folding, leg folding) traits in the Kachchi scheduled caste population of Sagar, Madhya Pradesh.

INTRODUCTION

The distribution of anthropogenetic traits in several northwestern Indian populations and some Indian tribes have been reported by Bhanwer et al. (1981), Sharma and Bhalla (1981), Narahari (1982), Kumar and Narahari (1987), Balgir (1992) and Narahari and Kumar (1994) to understand population variations. However, information regarding the frequency of such traits from central Indian region is scanty and it is therefore that the present study was undertaken.

The Kachchi is a peasant community, distributed in the states of Uttar Pradesh, Madhya Pradesh, Maharashtra, Rajasthan and Delhi. Crooke (1896) described them as a tribe of opium growers and market gardeners. Russel and Hiralal (1916) wrote, "The Kachchi - an important cultivating caste of the northern districts, who grow vegetables and irrigated crops requiring intensive cultivation." They are considered as scheduled caste nowadays. In Madhya Pradesh, the Kachchi are also known as Kushawaha or Bagwan. A number of subgroups of the community viz. Hardaha, Sahauva, Kushawaha, etc. are known. In Madhya Pradesh they are distributed in the districts of Jabalpur, Damoh, Sagar, Narsinghpur, Bhopal and Indore. Hindi is their mother tongue and

Devnagari their script. The subgroups of the community were endogamous earlier, but now they do not follow the rule strictly. They are Hindu by religion and worship village deities like Bajrang and Khermi. Their family deities are Kankali and Bhalera Devi.

SUBJECTS AND METHODS

The present study is based on 268 randomly sampled Kachchi subjects (166 males and 102 females) aged 15-40 from two villages viz. Tilli and Patharia Jat of Sagar district, Madhya Pradesh.

Standard procedures were followed for the study of phenylthiocarbamide (PTC) taste sensitivity (Weiner and Lourie, 1969) and for other morphological and behavioural traits (Balgir, 1992). Gene frequencies were calculated after Mourant et al. (1976).

RESULTS AND DISCUSSION

Table 1 shows the phenotype and allele frequencies of the PTC tasters and non-tasters among the Kachchi males and females of Sagar, Madhya Pradesh. The Kachchi females showed higher phenotype frequency (84.31%) of PTC tasters than males (75.90%), albeit overall no statistically significant sex difference was found between them for this trait. The frequency of *T* allele was 0.604 in females and 0.509 in males.

Frequencies of various morpho-behavioural traits among the Kachchi males and females are given in table 2. For earlobe attached trait, males showed the higher frequency (32.53%) than females (18.63%) and

Table 1 : Frequency of PTC tasters and non-tasters in the Kachchi of Sagar

Sex	n	Phenotype frequencies				Allele frequencies	
		Taster		Non-taster		T	t
		No.	%	No.	%		
Male	166	126	75.90	40	24.10	0.509	0.491
Female	102	86	84.31	16	15.69	0.604	0.396
Total	268	212	79.10	56	20.89	0.543	0.457

$$\chi^2_{(1)} = 2.70; p > 0.05$$

Table 2 : Frequencies of various morpho-behavioural traits in the Kachchi of Sagar

Trait	Male (n=166)		Female (n=102)		Total (n=268)		χ^2 value for sex difference
	No.	%	No.	%	No.	%	
Earlobe attached	54	32.53	19	18.63	73	27.24	6.15*
Handedness right	149	89.76	93	91.18	242	90.30	0.14
Arm folding right	70	42.17	44	43.14	114	42.54	0.02
Leg folding right	104	62.65	65	63.72	169	63.06	0.03

*Statistically significant at 5% level

the difference was statistically significant ($p < 0.05$). For the three behavioural traits viz. handedness, right, arm folding-right and leg folding-right, the Kachchi females were more frequent (91.18%, 43.14% and 63.72%, respectively) than males (89.76%, 42.17% and 62.65%, respectively), but overall for each trait studied the sex differences were not appreciable.

Thus the present study suggests overall homogeneity in the distribution of various behavioural and genetic traits between the two sexes of the Kachchi scheduled caste of Madhya Pradesh, and heterogeneity observed with respect to earlobe attachment - a morphological trait - could be an exception.

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