PRINT: ISSN 0970-9274 ONLINE: 2456-6608
DOI: 10.31901/24566608.1990/01.03.12

JOURNAL OF
HUMAN ECOLOGY

J. Hum. Ecol., 1(3): 311 (1990)

BRIEF COMMUNICATIONS

Glucose-6-Phosphate Dehydrogenase Deficiency Among the Brahmans and Rajputs of Bhimtal, Nainital District, Uttar Pradesh

[redacted] Mahadevan and M.K. Bhasin
Department of Anthropology, University of Delhi, Delhi-110 007, India

KEY WORDS G-6-PD. Brahmans. Rajputs. Uttar Pradesh.

ABSTRACT The frequencies of G-6-PD deficiency observed among Brahmans and Rajputs of Bhimtal, Nainital District, Uttar Pradesh are 6.1 and 5.0 per cent respectively. Similar results are observed among the population groups of North India, particularly of the Himalayan region.

In the present report two population groups—Brahmans and Rajputs of Bhimtal, Nainital District, Uttar Pradesh have been studied for glucose-6-phosphate dehydrogenase deficiency.

MATERIAL AND METHODS

The total number of samples tested for G-6-PD are 178 out of which 112 (66 males and 46 females) are Brahmans and 66 (60 males and 6 females) are Rajputs. The technique employed for the detection of G-6-PD deficiency was Methemoglobin Reduction Test after Brewer et al. (1962).

RESULTS AND DISCUSSION

The G-6-PD deficiency observed among Brahmans and Rajputs is 6.1 and 5.0 per cent respectively (Table 1). Among Brahman females 6.5 per cent are found heterozygotes.

In the population groups of North India the frequency of G-6-PD deficiency ranges in between 1.7 and 18.5 per cent, with an average frequency of 6 per cent. A few studies are available from the Himalayan region where the frequency of G-6-PD deficiency varies from 3.0 to 27.1 per cent, however, in most of the studies it is less than 10 per cent. The present population groups with low frequency of G-6-PD deficiency show similar results as observed among the population groups of North India, particularly from the Himalayan region.

Table 1: Frequency of glucose-6-phosphate dehydrogenase phenotypes and genes among Brahmans and Rajputs of Bhimtal, Nainital District, Uttar Pradesh

Population	*Sex*	*N*	*Normal*		*Heterozygotes*		*Deficient*		*Gene*	
			n	%	*n*	%	*n*	%	Gd^+	Gd^-
Brahmans	Male	66	62	93.9	—	—	4	6.1	94.4	5.6
	Female	46	43	93.5	3	6.5	—	—		
Rajputs	Male	60	57	95.0	—	—	3	5.0	95.0	5.0
	Female	6	6	100.0	—	—	—	—	—	—

REFERENCE

Brewer, G.J., Torlov, A.P. and Alving, A.S.: The methemoglobin reduction test for primaquine type sensitivity of erythrocytes. *JAMA, 180:* 386-388 (1962).