

Red Green Colour Blindness among the Lingayath of Karnataka

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KEYWORDS Colour blindness, Genetic Markers, Lingayat

ABSTRACT A study of defective colour vision was carried out in 350 unrelated Lingayath individuals of both the sexes. It was found that the percentage frequency of red green colour blindness was 2.4%.

INTRODUCTION

The defective colour vision has long been used as a genetic marker in the study of human variation. Red –green colour blindness is one of the few known x-linked polymorphic in human. Individuals with a colour vision defect usually have trouble discriminating red, blue and green. Colour blindness is an autosomal recessive condition, while partial red green and blue blindness is x-linked recessive traits and are controlled by three different genes located on xq28 (Mckusick, 1983). In India, studies have revealed that the incidence of colour blindness is different from one population to another (Bhasin et al., 1992; Bhasin and Walter, 2001).

MATERIALS AND METHODS

The present study was conducted on Lingayath individuals of Haranahalli village of Hassan district of Karnataka state. The Lingayaths are a religious community consisting of various castes held together by the bond of their common religion, they are also known as lingawants, lingangis, lingadharis, sivabhaktas and virasaivas. The members of the community prefer to be called virasaivas. (Iyer and Nanjundaiah, 1931). The members of the community prefer to be called virasaivas. They are found all over the Karnataka state and the districts of Mysore. The Lingayaths of Karnataka speak Kannada as their mother tongue. They are more literate than other people of the state except the Brahmins and the Jains.

The lingayaths of Hassan live in houses similar to those of other communities. Polygamy is allowed to any extent theoretically. Among the lingayaths, bride prices are not in force, puberty

custom is practice, widow remarriage is allowed at the present day, among some virasaivas. Widow remarriage is allowed in the kudike form. The religion of the lingayaths is founded on the belief in Shiva as having sakti. They believe in vedhas and Shiva agamas. As soon as the child is born, a linga is tied round his neck and shiva panchaksharimanthra is whispered in his or her ear. Children are named after shiva and his consort. They wear Rudraksha beads.

RESULTS AND DISCUSSION

Table 1, shows the percentage distribution of colour blindness of Lingayaths. Among the Lingayath males, the percentage of colour blindness has been found to be 2.4%. The affected persons are deutan type. No female colour blind is detected in Lingayaths.

Table 1: Incidence of red green colour blindness among Lingayaths

Sex	No.	Normal		Colour blind		Deutan type	
		No.	%	No.	%	No	%
Male	250	244	97.6	6	2.4	6	2.4
Female	150	150	100.0	-	-	-	-

The frequency of colour blind males among Indian population is 0.036 (varies from complete absence to 0.231 among Kshatriyas of Andhra Pradesh). It is present in low frequency in scheduled tribes as compared to other ethnic groups. It is high in north (0.038) and south (0.040) India than in other zones. It is low among agricultural groups and high in priesthood, warfare, trade and commerce groups.

The validity of the hypothesis of relaxation of selection among different ethnic groups

explains to some extent the status of colour blindness in tribal population groups.i.e, low frequency among them as compared to other ethnic groups particularly caste groups, but still it has to be substantiated with further data (Bhasin and Walter, 2001).

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