

Consanguinity Among Rellis of Visakhapatnam, Andhra Pradesh

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KEY WORDS Consanguinity, Scheduled Caste, Andhra Pradesh.

ABSTRACT Consanguinity has been studied in two endogamous subgroups of Rellis, a Scheduled Caste population of Visakhapatnam of Andhra Pradesh. The frequency of consanguineous marriages is higher in Relli-II (42.27%) than in Relli-I (39.90%). The coefficient of inbreeding values for autosomal (F_A) and sex linked (F_S) genes among two subgroups of Rellis record relatively lower values when compared with other caste populations from Andhra Pradesh.

INTRODUCTION

The State of Andhra Pradesh is historically known for a high incidence of consanguineous marriages which are of a great biological significance in genetic make up of human population.

In India, high incidence of inbreeding has been reported from caste and tribal populations of Andhra Pradesh (Sanghvi, 1966; Roychoudhary, 1976; Veeraju, 1978; Pingle, 1983; Reddy, 1985; Reddy, 1987).

The present note reports the incidence of consanguinity and coefficient of inbreeding values among two subgroups, namely, the fruit vendors (Relli-I) and the scavengers (Relli-II) of the Relli community scattered all over the city of Visakhapatnam of Andhra Pradesh.

MATERIAL AND METHODS

A total of 428 Relli families (Relli-I : 208; Relli-II : 220) were surveyed in different localities of Visakhapatnam city. Information was obtained by using interview schedules. The exact relationship between spouses is recorded by drawing pedigrees. In the present investigation Wright's (1921 and 1922) formulae are used for calculation of coefficient of inbreeding (F).

RESULTS AND DISCUSSION

The distribution of consanguineous marriages and inbreeding coefficients are given in table I.

The frequency of consanguineous marriages in Relli-I (39.90%) is lesser than in Relli-II (42.27%), the value for the pooled Rellis being 41.12%. Among consanguineous unions, matrilateral cross cousin (MBD) marriages are the most frequent type (14.42%) among Relli-I, while the patrilineal cross cousin (FSD) marriages record higher incidence among Relli-II (22.73%) as well as pooled Rellis (17.29%).

The coefficient values for autosomal genes is higher in Relli-I (0.0327) than the Relli-II (0.0295). The pooled data shows a value of 0.0310. The first cousin (FSD + MBD) marriage contribute higher value in both the sub groups of Rellis. The other types of marriages contributed marginally to the total value.

The coefficient values for sex-linked genes is higher in Relli-I (0.0345) than the Relli-II (0.0234). The Relli pooled records a value of 0.0288. The matrilateral cross cousin marriages contributed higher values in both the sub groups of Rellis and followed by uncle-niece marriages. However, the contribution of other marriage types to the total value is very less.

Among the other caste populations so far studied from Andhra Pradesh by different authors, the highest incidence of consanguinity is found in Jalaris (60.50%) (A.U. Reports, 1974) and the lowest in Brahmin (13.61%) (Srikumari, 1985). The inbreeding coefficient

Table 1 : Distribution of consanguineous marriages and inbreeding coefficients among Rellis

Population	Total marriages	Consanguineous marriages					F_{AI}	F_{SI}
		UN	MCC	PCC	FCOR	Total		
Relli-I	208	27 (12.98%)	30 (14.42%)	24 (11.54%)	2 (0.96%)	83 (39.90%)	0.0327	0.0345
Relli-II	220	12 (5.45%)	29 (13.18%)	50 (22.73%)	2 (0.91%)	93 (42.27%)	0.0295	0.0234
Relli(Pooled)	428	39 (9.11%)	59 (13.79%)	74 (17.29%)	4 (0.93%)	176 (41.12%)	0.0310	0.0289

UN : Uncle-Niece MCC : Matrilateral Cross Cousin

PCC : Patrilinear Cross Cousin FCOR : First Cousins Once Removed

for autosomal genes ranges from a low value of 0.011 in Brahmin (Srikumari, 1985) to 0.048 in Kapu (A.U. Reports, 1977). For sex-linked genes ranges between 0.011 in Kshatriya (A.U. Reports, 1982) to 0.060 in Jalari (A.U. Reports, 1974). The present study population Rellis however stand midway between the above values.

ACKNOWLEDGEMENT

One of the authors (M. Ramesh) thanks to Council of Scientific and Industrial Research (CSIR), New Delhi for the award of SRF with which the study was undertaken.

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