

A Note on Some Morphogenetic Variables Among the Sonowal Kacharis of Assam

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INTRODUCTION

Although comprehensive anthropometric and globin gene studies on the Sonowal Kacharis of Assam are now available, the studies on morphogenetic as well as behavioural traits like hand clasping, arm folding, handedness, dominant eye, tongue rolling and tongue folding etc on them are conspicuous by their absence. Genetic mechanism of these traits is still not clearly understood, but these are seen to occur with variable frequency in different populations and as such are useful in evaluating and analysing evolutionary forces and classification as well.

In the present note, an attempt has been made to report the frequency occurrence of few above mentioned morpho-genetic markers among the Sonowal Kachari of Assam. The present finding are also compared with other Kachari populations of Assam.

The Sonowal Kacharis, an endogamous branch of Kachari population, is a populous plain Scheduled Tribe of Assam. The Kacharis, who migrated to Brahmaputra valley, Assam from their original abode in Tibet and Western China in the unknown past is divided into several endogamous divisions such as the Boro, Dimasa, Burman, Hojai, Mech, Thengal, Semsā etc., besides Sonowal. They belong to the Bodo section of Tibeto-Chinese linguistic family as the tribes like the Rabha, Garo, Lalung, Hajong etc. The Sonowals are mainly concentrated in the districts of Dibrugarh, Tinsukia, Jorhat, Sibsagar, and Lakhimpur of upper Assam.

MATERIAL AND METHOD

The data were collected from 184 unrelated Sonowal Kachari individuals-91 males and 93 females – from different educational institutes in Barbarua Block, Dibrugarh district, Assam.

In recording and analysing various morphogenetic traits various standard techniques were employed in the present study. Lutz's (1908) technique for observation on hand clasping was followed while the type of arm folding was

categorised following Weiner (1932). For tongue rolling and tongue folding, a person was classified as positive (+) or negative (-) depending upon his/her ability to turn up the lateral edges of the tongue (Sturtevant, 1940) and folding of the tongue (Hsu, 1948). The type of handedness was determined by asking the subject with which hand he/she perform the various day to day activities. Similarly the individuals were asked to hold the kaleidoscope and look through it, and the dominance of the right/left eye was noted down.

RESULTS AND DISCUSSION

Considering the sex, it is observed that in the Sonowal Kachari with regard to hand clasping and arm folding, the right thumb and left arm over their counterparts is the usual one. The bisexual differences are, however, without exception statistically not significant. The incidence for the ability to roll and fold the tongue among the Sonowal males is markedly higher than the Sonowal females. Test of significance also brings out significant difference between the two sexes. With regard to handedness and dominant eye, right hand and right eye is the dominant one, and there is no statistically significant difference between the two sexes.

The present findings could not be compared with several sub-divisions of Kachari population, more particularly on the incidence of tongue rolling and tongue folding as no studies so far been undertaken among these populations of Assam.

It is apparent from the table 1 that the right type of hand clasping is prevalent with significantly high incidence, highest frequency of it seen among the Lalung (98.94%; Das et al., 1980). The Semsā (53.90%; Limbu, 1997) and the Sonowal (56.52%) show almost similar incidence. Right type of arm folding is common feature only in Lalung (56.38%) and both Sonowal Kachari (43.48%) and Semsā (48.70%) differ from them who show left type of arm folding with relatively higher frequency. The

Table 1: Percentage distribution of morphogenetic variables in some Kachari populations of Assam

<i>Population</i>	<i>No.</i>	<i>Hand clasping</i>	<i>Arm folding</i>	<i>Tongue rolling</i>	<i>Tongue folding</i>	<i>Dominant eye</i>	<i>Handedness</i>	<i>Source</i>
Sonowal Kachari								Present study
Male	91	54.94	42.86	54.94	79.12	89.01	95.60	
Female	93	58.06	44.09	10.75	38.71	87.10	92.47	
M + F	184	56.52	43.48	32.61	58.70	88.04	94.02	
Semsa	154	53.90	48.70	58.44				Limbu (1997)
Lalung	94	98.94	56.38	72.34		44.68	96.81	Das et al. (1980)

incidence for the ability to roll the tongue is relatively less in the Sonowals (32.61%) and they differ significantly from the Semsas (58.44%) and the Lalung (72.34%).

Our assessment of the morphogenetic relationship between the Sonowal Kachari with other sub-divisions of Kachari support the observation made earlier on the basis of genetic features using ABO blood groups and Rh factor. The Sonowal Kachari show a great deal of variation and in no way show resemblance with other Kachari tribes of Assam.

KEY WORDS Morphogenetic Traits. Sonowal Kachari. Assam. Population Variation.

ABSTRACT Morphogenetic traits such as hand clasping, arm folding, handedness, dominant eye, tongue rolling, and tongue folding of the Sonowal Kacharis of Assam are reported. The results of the present study are compared

with other Kachari populations in order to assess the group difference or similarities. The present Sonowal Kachari people stand significantly apart and in no way show resemblance with other Kachari populations of Assam.

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