

## **Cephalic Index in Purana Inhabitants at the Foot of Sigiriya, Sri Lanka**

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Racial and ethnic differences in cranial morphology are documented. Genetic and non genetic factors such as climate and nutritional status are known to influence the cranial variation observed between human populations. The Cephalic index is important when comparing the cranial morphology of the different ethnic groups in populations. The purana populations in Sigiriya facing imminent threat of extinction trace their ancestry to the times of the Sinhalese King of the 5<sup>th</sup> Century A.D. This study was carried out to determine the cranial index of purana inhabitants of Thalkote, Diyakepilla, Nagalawewa and Pidurangala purana villages at the foot of Sigiriya. One hundred and six male and 206 female purana inhabitants belonging to purana pedigree with apparently healthy and without any craniofacial deformity, were recruited for this study. The individual selection was based on verbal pedigree analysis and pedigree was traced back to at least three generations. The maximum cranial length and breadth was taken according to the standard anthropometry procedure described in Harrison et al in 1990 by using spreading caliper. The horizontal cephalic index of each individual was calculated by using measured maximum cranial length and maximum cranial breadth of each individual. The calculated mean horizontal cephalic index of male was  $78.33 \pm 5.29$  (mesocephalic) and female was  $80.79 \pm 5.86$  (mesocephalic). The mean horizontal cephalic index for male and female was  $80.04 \pm 5.80$  (mesocephalic). The mean horizontal cephalic indices of male (78.33) and female (80.79) in this study was higher than the mean value of Sri Lankan population reported by Illeperuma 2011, male as 78.04 and female as 79.32. The obtained mean horizontal cephalic index in this study being 80.04 was higher than the mean value of Sri Lankan population (78.54) reported by Illeperuma 2011 and Iranians : 75 (Farahani) and it is lower than the Indians : 80.42 (del sol), Europeans in Mediterranean region : 81.19, Japanese : 87, (Nakahani 1986). These finding reinforce the racial diversity in the cephalic index between the purana inhabitants and modern Sri Lankans.

***Key words:*** Purana inhabitants, Cephalic index, Human diversity