

Cytogenetical and Anthropometric Studies on Clinically Diagnosed Patients with Down Syndrome

A.B. Das Chaudhuri

*Human Genetics Laboratory, Department of Anthropology University of Calcutta, Calcutta
700 019 West Bengal, India*

KEYWORDS Anthropometry. Cytogenetics. Down Syndrome. Growth

ABSTRACT The blood sample of 9 children and 1 male adult individual (Bengalee parentage) who were clinically diagnosed as Down syndrome (DS) patients were subjected to lymphocyte culture using standard method. Two cultures were unsuccessful. The karyotype analysis of 6 children (2 boys and 4 girls) and 1 adult individual (male) revealed the chromosomal anomaly of trisomy 21. The karyotype of 1 girl was normal. Anthropometric measurements of cytogenetically evidenced 6 DS children with trisomy 21 (2 boys and 4 girls) were compared with the available percentiles of Sarsuna-Barisha study (Das 1985) of normal Bengalee children and ICMR study (1984) of Indian children for understanding retardation of growth, if any, in these children affected with DS. The results indicated that the boys and girls with DS suffered from growth failure as they do not perpetually succeed to attain the excepted body height and biacromial diameter (Sarsuna-Barisha study) and body height, weight and head and chest circumferences (ICMR study) in their respective age groups. In spite of limited sample size considered in this preliminary study, the present findings are consistent with the fact that growth in children with DS is retarded than that of the normal children in the Bengalee population.