

Distribution Pattern of HbS and β -globin Gene Haplotypes among Koya Dora Tribe of Andhra Pradesh

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ABSTRACT Sickle cell disease is a hemoglobinopathy characterized by the production of abnormal hemoglobin, HbS (sickle cell hemoglobin). HbS gene is widely prevalent across Indian populations, especially among tribal populations. In the present study, Koya Dora tribal group of Andhra Pradesh was screened for HbS gene and also for the associated β globin haplotypes. Hb*S was found to be present in a high frequency (16.2%) in the studied population, and no HbS homozygous individual was found. Molecular screening was done for four sites namely, HincII- $\psi\beta$, HincII-3' $\psi\beta$, HinfI 5' β and HbA/S. All the sites were found to be polymorphic in the population. Arab-Indian haplotype was the most common haplotype associated with Hb*S among Koya Dora. Three atypical haplotypes, Senegal, Benin and Bantu were also observed, although in low frequencies.