

Study of Genetic Relationships of Indian Gurkha Population on the Basis of HLA - A and B Loci Antigens

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KEYWORDS Population genetics; HLA antigens; genetic relationship; Gurkha population

ABSTRACT Indian population is well known for its genetic diversity. Among the numerous endogamous ethnic groups of North Bengal, we have collected blood samples from 50 unrelated Nepali speaking individuals, belonging to Gurkha community. In the present investigation, the frequency of HLA-A and B loci antigens has been analyzed serologically and compared with few major world populations. The frequency of A2, A11, A33, B18 and B51 showed increased frequency and several haplotypes including A3-B35, A33-B44, A68-B35 have significant linkage disequilibrium values. The standard genetic distances of the Gurkha population were calculated on the basis of gene frequency data of HLA antigens and when compared with other populations, it has revealed that Gurkha population is genetically closer to the population of Mongoloid origin. It can be considered that the Gurkha population may have been originated from Mongolians and/or Tibetan stocks.