

Glycophorin-A Allelic Distribution Frequency in South Indian Population

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ABSTRACT Lansteiner and Levine described a blood group system in 1927 called the MN system. According to this theory, three possible genotypes MM, MN and NN occur. The antigenic determinant of human MN system on erythrocytes is a sialoglycoprotein with a chain of 151 amino acids. It is regarded that about 50% of the population will express the MN heterozygous genotype as this is based on the Mendelian inheritance. Studies on the distribution frequencies of blood groups and subgroups of a population is one way to understand the population's genetic makeup and susceptibility to disease. Blood samples were collected from 413 south Indian volunteers who were chosen randomly for the blood grouping of MM, NN or MN types. The data was recorded and the gene frequencies for the MN, NN and MM types were calculated using the standard statistical analysis. The results show that approximately 50% of the population is heterozygous for MN and fits into Hardy-Weinberg equilibrium.