

ABSTRACT

Host genetic factors are an important determinant of outcome in malarial infection with multiple susceptibility factors identified. Various reports have associated HLA and CR1 polymorphisms to disease pathogenesis. Assam accounts for more than 50% of reported cases of malaria in northeastern India and there is limited information on disease associated gene polymorphisms in the population. Thus, the present study aims to investigate the prevalence of CR1 and HLA polymorphisms (A*11, A*24, A*33) and their association with disease in the two linguistic populations of Assam. The study showed significant association of HLA A* 33 ($p= 0.03$) and HLA A*24 ($p <0.0001$) with disease. HLA A*24 polymorphism was positively correlated to diurnal variation. No significant association of CR1 polymorphism (Q981H mutation) to the disease was observed.