Abstract

Systemic lupus erythematosus (SLE) is a multisystem autoimmune connective tissue disorder characterized by loss of self-tolerance causing immune-mediated tissue destruction and various clinical presentations Interleukin-18 (IL-18) is a proinflammatory cytokine that plays an important role in chronic inflammation and autoimmune disorders. This study investigates polymorphisms of the IL-18 gene in SLE patients at positions -607 and -137 of the promoter to elucidate their possible roles in the activity and severity of this disease. Fifty SLE patients and fifty unrelated healthy control group were included. All SLE patients underwent thorough clinical examination and SLE disease activity assessment using SLEDAI. Genomic DNA was extracted from peripheral venous blood. Sequence-specific primer PCR analysis were used to genotype the DNA samples for SNP-607and SNP-137, while plasma IL-18 concentrations of patients and control subjects were measured by enzyme-linked immunosorbent assay. The frequency of SNP-607/CC genotype showed significant increase (P