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FAS -670A>G promoter polymorphism is associated with soluble Fas levels in primary Sjögren's syndrome

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ABSTRACT. Primary Sjögren's syndrome (pSS) is a chronic systemic autoimmune disease characterized by lymphocytic infiltration of exocrine glands. Soluble Fas receptor (sFas) has been suggested as a Fas-mediated apoptosis blocker that could impair clonal deletion in infiltrated autoreactive cells. The FAS -670A>G promoter polymorphism has been studied in pSS. However, a relationship between FAS -670A>G promoter polymorphism and sFas levels in pSS had not been found. We examined this relationship in 77 Mexican pSS patients and 84 healthy subjects were included.

Genotypes were identified by PCR-RFLP, and Fas soluble levels were quantified by ELISA. No significant differences between allele and genotype frequencies were found between these two groups. The sFas levels in the serum of pSS patients were significantly higher than in controls (9961 *vs* 8840 pg/mL, respectively). In addition, AA genotype carriers had significantly higher levels of sFas than GG carriers (pSS: 10,763 and 9422 pg/mL; controls: 9712 and 8305 pg/mL, respectively). An additive model analysis between genotypes (AG+GG *vs* AA) in both groups, demonstrated a significant association between carriers of the A allele and high sFas levels. In conclusion, carrying the double dose of A allele of FAS -670A>G polymorphism is associated with high levels of sFas in pSS, but it is not a susceptibility marker for pSS.

Key words: Primary Sjögren syndrome; Soluble Fas; FAS gene; FAS -670A>G polymorphism; Fas receptor

