Influence of interleukin-1β and interleukin-6 gene polymorphisms on the development of acute pancreatitis

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ABSTRACT. We investigated the association between 3 main proinflammatory cytokines [interleukin (IL)-1β and IL-6] and the risk of acute pancreatitis. Polymerase chain reaction-restriction fragment length polymorphism was used to genotype IL-1β +3954 C/T (rs1143634) and IL-1β -511 C/T (rs16944) and IL-6 -174 G/C (rs1800795) and IL-6 -634 C/G (rs1800796). The genotype distributions of IL-1β +3954 C/T (rs1143634) and IL-1β -511 C/T (rs16944) and IL-6 -174 G/C (rs1800795) and IL-6 -634 C/G (rs1800796) were in Hardy-Weinberg equilibrium for the control group. Multivariate regression analyses showed that subjects carrying the rs1143634 TT genotype had a significantly increased risk of acute pancreatitis, with an adjusted odds ratio (95% confidence interval) of 2.11 (1.03-4.51). Subjects carrying the IL-1β rs1143634 TT genotype had a significantly increased risk of acute pancreatitis in our Chinese population.

Key words: Acute pancreatitis; Chinese; Interleukin-1β; Interleukin-6