



Investigation of the association between Interleukin-10 polymorphisms and risk of acute pancreatitis in a Chinese population

H.L. Jia¹, P.L. Sun² and C.Q. Lu¹

¹Department of Emergency, The Second Affiliated Hospital of Henan College of Traditional Chinese Medicine, Zhengzhou, China

²Department of Cardiology, Henan Chest Hospital, Zhengzhou, China

Corresponding author: H.L. Jia

E-mail: heleijia@163.com

Genet. Mol. Res. 14 (4): 15876-15881 (2015)

Received July 25, 2015

Accepted October 18, 2015

Published December 1, 2015

DOI <http://dx.doi.org/10.4238/2015.December.1.39>

ABSTRACT. We conducted a case-control study to investigate the possible association between three common single nucleotide polymorphisms in interleukin-10 (IL-10) and the development of acute pancreatitis in a Chinese population. Between January 2013 and December 2014, 255 patients with acute pancreatitis and 255 control subjects were recruited for the study. Genotyping of IL-10 rs1800896, rs1800871, and rs1800872 was performed using polymerase chain reaction coupled with restriction fragment length polymorphism. Using logistic regression analysis, we found that the AA genotype of IL-10 rs1800896 was correlated with an increased risk of acute pancreatitis in a codominant model (OR = 2.44, 95%CI = 1.28-4.77). In a dominant model, we found that the GA+AA genotype of IL-10 rs1800896 was associated with an elevated risk of acute pancreatitis (OR = 1.51, 95%CI = 1.05-2.18). In a recessive model, the AA genotype of IL-10 rs1800896 was correlated with an increased risk of acute pancreatitis (OR = 1.98, 95%CI = 1.06-3.77). In conclusion, IL-10 rs1800896 was correlated with an increased risk of acute pancreatitis in codominant, dominant, and

recessive models.

Key words: Interleukin-10; Polymorphism; Acute pancreatitis