البحث الثالث: منفرد ومستخلص من رساله

عنوان البحث:

Association between SNPs of Cytotoxic T-lymphocyte-associated protein 4 (CTLA-4), programmed cell death 1 (PD-1) and the susceptibility to chronic Hepatitis C infection in virus C-infected patients

العلاقة بين تعدد اشكال النوكليوتبدات المفرده (SNPs) في بروتين الخلايا التائيه السامه للخلايا (CTLA-4) وبرمجة موت الخليه 1 (PD-1) والقابلية للإصابة بالتهاب الكبد المزمن لدى المرضى المصابين بالفيروس الكبدي سي

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Abstract

Background: Cytotoxic T-lymphocyte-associated protein 4 (CTLA-4) and programmed cell death 1 (PD-1) are immune inhibitory factors that provide inhibitory signals to T cells. Methods: A case-controlled genetic association study was conducted in478 patients (160 patients with chronic Hepatitis C virus (HCV) and diabetes mellitus (DM) and156 patients with chronic HCV without DM) and162healthycontrols. We genotyped selected single nucleotide polymorphisms (SNPs) of rs10204525 andrs231775using real-time-polymerase chain reaction (RT-PCR).Results: Our study revealed thatthers10204525 CT genotype was significantly associated with a high susceptibility to chronic HCV infection and to HCV+DM (adjusted odds ratio (OR)7.531, 95% confidence interval(CI):4.099–13.836, $P < 0.0001$ and adjusted OR 7.791, 95% CI:4.244–14.303, $P < 0.0001$, respectively).In addition, the frequency of CT+TT genotypes versus the CC genotype and the T allele versus the C allele were elevated in non-responder patients to antiviral therapy compared with responder patients ($P < 0.0001$) in HCV group. For rs231775,the AG genotype was significantly associated with a high susceptibility to chronic HCV infection and HCV infection with DM (adjusted OR 5.124,95% CI:3.150–8.334, $P < 0.0001$ and adjusted OR20.594, 95% CI:11.026–38.467, $P < 0.0001$, respectively).Furthermore, the frequency of AG+GG genotypes versus the CC genotype and the G allele versus the A allele was elevated in non-responder patients to antiviral therapy when compared with responder patients in the HCV and HCV+DM groups($P < 0.05$).Conclusions: Both rs10204525 and rs231775 are associated with a risk of chronic HCV, with or without DM.