

Study of cytochrome P450 2E1 and its allele variants in liver injury of nondiabetic, noalcoholic steatohepatitis obese women

Varela, Nelson M.

Quiñones, Luis A.

Orellana, Myriam

Poniachik, Jaime

Csendes, Attila

Smok, Gladys

Rodrigo, Ramón

Cáceres, Dante D.

Videla, Luis A.

CYP2E1 enzyme is related to nonalcoholic steatohepatitis (NASH) due to its ability for reactive oxygen species production, which can be influenced by polymorphisms in the gene. The aim of this study was to investigate hepatic levels, activity, and polymorphisms of the CYP2E1 gene to correlate it with clinical and histological features in 48 female obese NASH patients. Subjects were divided into three groups: (i) normal; (ii) steatosis; and (iii) steatohepatitis. CYP2E1 protein level was assayed in microsomes from liver biopsies, and in vivo chlorzoxazone hydroxylation was determined by HPLC. Genomic DNA was isolated for genotype analysis through PCR. The results showed that liver CYP2E1 content was significantly higher in the steatohepatitis (45%; $p=0.024$) and steatosis (22%; $p=0.032$) group compared with normal group. Chlorzoxazone hydroxylase activity showed significant enhancement in the steatohepatitis group (15%, $p=0.027$) compared with the normal group. c2 rare allele of Rsa1/Pst1