Xenobiotic biotransformation gene polymorphisms, TNFα and IL-4 in patients with obstructive jaundice

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Objective. To study genetic polymorphism of CYP2E1 -1293 G/C (c1/c2), CYP 3A4 1A/1B, NAT2 Leu161Leu (481 c/t), GSTP1 Ile105Val, IL4 C-589T, TNFA G-308A in patients with obstructive jaundice and uncomplicated gallbladder disease. Material and methods. The study included 54 patients divided into three comparison groups: a) patients with benign obstructive jaundice, b) malignant obstructive jaundice and c) uncomplicated gallbladder disease. The genomic DNA extracted from blood leukocytes using the SNP express system was analysed. Results. The allele C of CYP2E1 gene is a risk factor of biliary tract disease. The association of allele A of gene TNFA G-308A with increased risk of obstructive jaundice due to choledocholithiasis was found. At the same time alleles T of gene IL4 C-589T decreased risk of malignant obstructive jaundice. Conclusion. The allele C of gene CYP2E1 -1293 G/C is a risk factor of biliary tract disease. The carriers of the allele A of gene TNFA G-308A are more likely to develop the malignant obstructive jaundice. At the same time alleles T of genes Leu161Leu and IL4 C-589T are the protective factor for subhepatic cholestasis. (Cytokines and Inflammation. 2014. Vol. 13. № 1. P. 51–56.)

Key words: genetic polymorphism, interleukins, obstructive jaundice.