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综述

细胞色素P450酶基因多态性及其介导的药物性肝损伤研究进展

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摘要 药物性肝损伤是指因药物本身或患者特殊体质从而在药物使用过程中引起的肝脏损伤。代谢特异质是药物性肝损伤的主要发生机制之一, 由于难以预测, 代谢特异质肝损伤带来的危害相对于传统肝损伤来说更为严重, 其主要与代谢酶的基因多态性有关。细胞色素P450(CYP)是生物体内主要的Ⅰ相药物代谢酶。CYP具有遗传多态性, 可能介导了部分药物所致的肝损伤。但目前国内尚缺乏系统归纳分析CYP因多态性与药物性肝损伤发生相关性的文献报道。本文综述了CYP酶系中几个主要代谢酶包括CYP3A4, CYP2D6, CYP2C9, CYP1A2和CYP2C19的基因多态性, 及CYP基因多态性介导的药物性肝损伤。

关键词 药物性肝损伤 细胞色素P450 基因多态性

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Progress in genetic polymorphism of cytochrome P450 enzymes and drug-induced liver injury

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Abstract

Drug-induced liver injury refers to a hepatic ailment in patients that arises from the drug itself or the patient's special constitution. Metabolic idiosyncrasy is one of the main mechanisms of drug-induced liver injury, which is related to genetic polymorphism of metabolic enzymes. As prediction is difficult, the damage of idiosyncratic drug-induced liver injury is much more serious than traditional injury. Cytochrome P450 (cytochrome P450, CYP) is the main phase Ⅰ drug metabolizing enzymes in organisms. It has genetic polymorphisms, which possibly mediate some cases of drug-induced liver injury. However, there is still a lack of systematic research analysis of the correlation between CYP450 genetic polymorphisms and drug-induced liver injury. This paper summarized the genetic polymorphisms of CYP including CYP3A4, CYP2D6, CYP2C9, CYP1A2 and CYP2C19 and analyzed the relationship between drug-induced liver injury and genetic polymorphisms of CYP450.

Key words drug-induced liver injury cytochrome P450 genetic polymorphism

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