

## 原发性肝细胞癌中P-gp、Topo II α和P53的 表达及意义

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### Expression and Implication of P-gp, Topo II α and P53 in Primary Hepatocellular Carcinoma

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- 摘要
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**摘要** 目的研究原发性肝细胞癌 (primary hepatocellular carcinoma, PHC) 组织中多药耐药基因P-糖蛋白(P-glycoprotein, P-gp)、拓扑异构酶II α (topoisomerase II alpha, Topo II α) 和P53的表达及共表达情况, 分析其表达与PHC临床特征的关系。方法采用免疫组织化学SP法检测P-gp、Topo II α和P53的表达, 并结合临床特征进行分析。结果P-gp、Topo II α和P53阳性表达率分别为80.74% (109/135)、46.67% (63/135) 和33.33% (45/135), P-gp阳性率明显高于Topo II α、P53 ( $P=0.000$ ), Topo II α阳性率高于P53 ( $P<0.05$ )。P-gp阳性率与患者年龄、肿瘤细胞分化程度、肿瘤大小有关, 患者血清AFP升高者P-gp、Topo II α阳性率均高于AFP正常者 ( $P<0.05$ ), 血清AST升高者P-gp、P53阳性率均高于AST正常者 ( $P<0.05$ )。Topo II α和P53阳性率与患者年龄、肿瘤细胞分化程度、肿瘤大小无关 ( $P>0.05$ )。两种和三种基因产物共表达阳性率为51.85% (70/135), 明显高于单一基因产物表达阳性率34.07% ( $\chi^2=8.706$ ,  $P<0.01$ )。结论肝癌多药耐药是由多种耐药基因产物共同作用的结果, 单基因和多基因共同作用, 以多基因共表达为主。联合检测肝癌患者的多药耐药基因产物, 对于临床合理用药、提高化疗疗效具有指导意义。

**关键词:** [关键词: 原发性肝细胞癌 多药耐药 P-糖蛋白 拓扑异构酶II α P53](#)

**Abstract:** ObjectiveTo explore the expression of P-glycoprotein (P-gp), topoisomerase II alpha (Topo II α), P53 in primary hepatocellular carcinoma (PHC) and their correlations with clinical characteristics.

**Methods**The expressions of P-gp, Topo II α and P53 were detected by means of SP immunohistochemical technique in 135 cases of PHC. ResultsThe positive rates of P-gp, Topo II α and P53 were 80.74% (109/135), 46.67% (63/135), 33.33% (45/135) respectively. The positive rate of P-gp was higher than that of Topo II α or P53 ( $P=0.000$ ). The positive rate of Topo II α was higher than that of P53( $P<0.05$ ). The expression of P-gp was related to age, tumor differentiation and tumor size. The expressions of P-gp and Topo II α were higher in cases with AFP-elevated than those of AFP-normal ( $P<0.05$ ). The expressions of P-gp and P53 were higher in cases with AST-elevated than those of AST-normal ( $P<0.05$ ). The expressions of Topo II α and P53 weren't related to age, tumor differentiation and tumor size ( $P>0.05$ ). The co-expression rate of multidrug resistant genes was 51.85% (70/135). The co-expression rate was higher than individual expression rate (34.07%,  $\chi^2=8.706$ ,  $P<0.01$ ). ConclusionThe multidrug resistance of PHC is affected by various multidrug resistance genes. There is synergistic effect between single and multiple genes, co-expression of multiple genes mainly. It is important that detection of their expressions may guide the clinical use of drugs and predicate chemotherapy effects.

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