IGF-2、AFP、ALP、r-GT在原发性肝癌模型小鼠血清中的表达水平

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Title: **Expression level of IGF-2,alpha fetoprotein,alkaline phosphatase and r-GT in serum of primary liver cancer model mice**

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摘要: 目的:研究胰岛素样生长因子-2（insulin like growth factor，IGF-2）、甲胎蛋白（alpha fetoprotein，AFP）、碱性磷酸酶（alkaline phosphatase，ALP）、r－谷氨酰转肽酶（r-glutamyl transferase，r-GT）在原发性肝癌模型小鼠血清中的表达水平。方法：选择SD健康雄性小鼠35只，按照随机数字法分为正常组和原发性肝癌组两组，分别有10只和25只小鼠。正常组小鼠不做任何处理，原发性肝癌组小鼠制成原发性肝癌模型，造模成功的共22只小鼠。免疫透射比浊法检测IGF-2、电化学发光免疫分析检测AFP的血清水平、双抗体夹心法检测ALP、r-GT水平表达、荧光定量RT-PCR技术检测IGF-2 mRNA、AFP mRNA、ALP mRNA、r-GT mRNA表达水平。结果：正常组小鼠肝组织细胞大小均匀，形态一致；原发性肝癌组小鼠肝组织细胞大小不等，细胞核形态多样，多有核分裂现象。原发性肝癌组小鼠的血清中IGF-2和IGF-2 mRNA水平均显著高于正常组的健康小鼠（P＜0.05）；原发性肝癌组小鼠的血清中AFP和AFP mRNA水平均显著高于正常组的健康小鼠（P＜0.05）；原发性肝癌组小鼠的血清中ALP和ALP mRNA水平均显著高于正常组的健康小鼠（P＜0.05）；原发性肝癌组小鼠的血清中r-GT和r-GT mRNA水平均显著高于正常组的健康小鼠（P＜0.05）。结论：原发性肝癌模型小鼠血清中IGF-2、AFP、ALP、r-GT水平都呈高水平表达，检测其血清中的水平对原发性肝癌的诊断有重要价值。

Abstract: Objective:To study the expression level of insulin-like growth factor-2(IGF-2),alpha fetoprotein(AFP),alkaline phosphatase(ALP),r-glutamyl transpeptidase(r-GT)in the serum of primary liver cancer model mice.Methods:35 healthy male SD mice were randomly divided into two groups:normal group and primary liver cancer group.There were 10 mice and 25 mice.Mice in the normal group did not receive any treatment,and the mice in the primary liver cancer group were made primary liver cancer models,and 22 mice were successfully established.Immunoturbidimetry was used to detect the serum level of IGF-2.Electrochemiluminescence immunoassay (ECL) was used to detect serum level of AFP,double antibody sandwich method to detect the level of ALP,r-GT,and fluorescence quantitative RT-PCR to detect IGF-2 mRNA,AFP mRNA,ALP mRNA,and r-GT expression level.Results:In the normal group,the size of the liver tissue is uniform and the shape of the liver is the same.The liver tissue of the primary liver cancer group is different in size,and the cell nucleus is diverse,and most of them have the phenomenon of nuclear division.The serum levels of IGF-2 and IGF-2 mRNA in the serum of the primary liver cancer mice were significantly higher than those in the normal group (P＜0.05).The levels of AFP and AFP mRNA in the serum of the primary liver cancer mice were significantly higher than those in the normal mice (P＜0.05).The serum ALP and ALP mRNA in the serum of the primary liver cancer mice were significantly higher than those in the normal group (P＜0.05).The serum levels of r-GT and r-GT mRNA in the serum of the primary liver cancer mice were significantly higher than those in the normal group (P＜0.05).Conclusion:The serum levels of IGF-2,AFP,ALP and r-GT in the serum of primary liver cancer mice were highly expressed.The detection of serum levels was of great value for the diagnosis of primary liver cancer.

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