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基础研究

实验性酒精性肝损伤小鼠血清和肝组织中 ACTA及FS的表达水平及其意义

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摘要：

目的：探讨激活素A（ACTA）和卵泡抑素（FS）在酒精性肝损伤中的作用，阐明酒精性肝病的发生机制。方法：建立酒精性肝损伤小鼠模型，以建模后24、72、120及168 h为时间点，采用ELISA法检测40例模型组小鼠及40例对照组小鼠血清ACTA和FS水平以及肝功能变化情况。对模型组小鼠和对照组小鼠肝组织进行HE染色及免疫组织化学染色，观察小鼠肝组织病理变化和ACTA及FS的表达情况。结果：各时间点对照组小鼠血清谷丙转氨酶（ALT）、谷草转氨酶（AST）和ACTA水平无明显变化，而模型组小鼠血清ALT、AST和ACTA水平均有不同程度的变化，其中ALT、AST水平以24 h为最高，ACTA水平以72 h为最高。模型组小鼠血清ALT、AST及ACTA水平在4个时间点上与相应对照组比较差异均有统计学意义（P<0.01）。在4个时间点，模型组和对照组小鼠FS水平比较差异无统计学意义（P>0.05）。对照组小鼠肝组织中几乎不表达ACTA，而FS表达阳性。模型组小鼠的肝组织汇管区周围高表达ACTA。模型组小鼠肝组织FS表达水平与对照组小鼠肝组织FS表达无明显差异。结论：ACTA和FS在酒精性肝损伤过程中发生了不同的变化，ACTA和FS系统失衡可能是酒精性肝病和肝纤维化形成的重要原因。

关键词： 激活素A；酒精性肝损伤；酒精性肝病

Expression levels of ACTA and FS in |serum and liver tissue of mice with experimental alcoholic liver injury

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Abstract:

Abstract:Objective
To investigate the effects of activin A (ACTA) and follistatin (FS) in alcoholic liver injury in mice,and to clarify the mechanism of alcoholic liver disease.Methods Mouse models of alcoholic liver injury were established.24,72,120,168 h after establishment were used as the time points,the serum ACTA and FS levels and liver function changes in 40 cases of alcoholic liver injury mice and 40 healthy mice were detected with ELISA method. The liver tissues of model mice and healthy control mice were stained with HE and immunohistochemical method to observe the histopathological changes of liver tissues and expressions of ACTA and FS.Results The levels of serum alanine aminotransferase (ALT),aspartate aminotransferase (AST) and ACTA in control group at each time point did not change significantly;while in model group,the ALT,AST and ACTA levels changed at different degrees,of which ALT,AST levels at 24 h for the highest,ACTA had the highest level at 72 h.The ALT,AST,and ACTA levels at the four time points in model group had significant differences compared with the corresponding control group(P<0.01).At four time points, the FS levels had no significant difference between model group and control group(P> 0.05).The control mouse liver tissue almost did not express ACTA,but positively expressed FS.ACTA highly expressed in the liver tissue around the portal area of model mice.There was no significant difference of FS expression in liver tissues between control mice and model mice.Conclusion ACTA and FS have different changes in alcoholic liver injury,and ACTA and FS system imbalances may be the important reasons of alcoholic liver disease and liver fibrosis.

Keywords: activin A;alcoholic liver injury;alcoholic liver disease

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