

论著

Fas/FasL介导的caspase-3活化与急性胰腺炎腺泡细胞凋亡的关系

李震东¹,马清涌²,罗羽宏¹

1暨南大学附属第一医院肝胆外科, 广东 广州 510630; 2西安交通大学第一医院肝胆外科, 陕西 西安 710061

收稿日期 2009-2-6 修回日期 2009-4-2 网络版发布日期 2009-8-19 接受日期 2009-4-2

摘要 目的: 研究凋亡调控基因及蛋白Fas、FasL和caspase-3在大鼠急性胰腺炎(AP)组织中的表达及其相互关系。方法: 经胰胆管逆行注射不同浓度的牛磺胆酸钠建立不同炎症程度的AP模型, 采用RT-PCR、Western blotting技术检测大鼠胰腺炎组织Fas、FasL和caspase-3蛋白及mRNA的表达, TUNEL法检测胰腺炎组织腺泡细胞凋亡。结果: 在正常胰腺组织内即可见Fas、FasL、caspase-3蛋白和mRNA的表达; 建立AP模型后, 随胰腺炎症程度的加重, Fas、FasL、caspase-3蛋白和mRNA的表达逐渐下降, 腺泡细胞凋亡率亦逐渐下降, 且caspase-3表达水平在各个组间的变化趋势与Fas/FasL系统的变化趋势相一致。结论: Fas/FasL系统介导的凋亡途径参与了急性胰腺炎腺泡细胞凋亡的调节。

关键词 [胰腺炎](#); [细胞凋亡](#); [Fas/FasL](#) [半胱氨酸天冬氨酸蛋白酶3](#)

分类号 [R363](#)

Relation of Fas/FasL-mediated caspase-3 activation with acinar cell apoptosis in rats with acute pancreatitis

LI Zhen-dong¹, MA Qing-yong², LUO Yu-hong¹

1Department of Hepatobiliary Surgery, The First Affiliated Hospital of Jinan University, Guangzhou 510630, China; 2Department of Hepatobiliary Surgery, The First Hospital of Xi'an Jiaotong University, Xi'an 710061, China. E-mail: victor7922@163.com

Abstract

AIM: To observe the expression and interrelationship of apoptosis controlling genes and proteins Fas, FasL, caspase-3 in rats with acute pancreatitis (AP). METHODS: Forty male Sprague Dawley rats were randomly divided into four groups, 10 rats each group. Acute pancreatitis with different inflammatory degree was induced by retroinjecting 2.0%, 3.5% or 5.0% sodium taurocholate at dose of 1 mL/kg body weight into the pancreaticobiliary duct. All the rats were sacrificed 6 h after operation. The pathologic changes of pancreas were observed under optical microscope. The protein and mRNA expressions of Fas, FasL, caspase-3 in pancreatic tissue were measured by Western blotting and RT-PCR. The apoptosis of acinar cells was measured by the methods of in situ end labeling. RESULTS: In normal pancreatic tissue, there appeared the protein and mRNA expression of Fas, FasL, caspase-3. In acute pancreatitis with different inflammatory degree, with the degree of inflammation worsen, the apoptosis cells tapered, the expression of above protein and mRNA also descended gradually. Furthermore, the variation tendency of caspase-3 among the four groups was in coincidence with Fas or FasL. CONCLUSION: Fas/FasL-mediated apoptotic pathway participates in the regulation of acinar cell apoptosis in acute pancreatitis.

Key words [Pancreatitis](#) [Apoptosis](#) [Fas/FasL](#) [Caspase-3](#)

扩展功能

本文信息

- ▶ [Supporting info](#)
- ▶ [PDF\(8310KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献](#)

服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)
- ▶ [复制索引](#)
- ▶ [Email Alert](#)
- ▶ [文章反馈](#)
- ▶ [浏览反馈信息](#)

相关信息

- ▶ [本刊中 包含“胰腺炎; 细胞凋亡; Fas/FasL”的 相关文章](#)
- ▶ [本文作者相关文章](#)

- [李震东](#)
- [马清涌](#)
- [罗羽宏](#)

