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论著

Gq/11蛋白在ARDS时大鼠肺损伤中的动态变化Gq/11蛋白在ARDS时大鼠肺损伤中的动态变化

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摘要 目的：研究急性呼吸窘迫综合征（ARDS）时大鼠肺Gq/11蛋白的动态变化。 方法： 采用尾静脉注射油酸法复制大鼠ARDS模型,并将其分为对照组（C组）和油酸组（OA组），又根据不同时限将其分为30 min、60 min、90 min和120 min 4个亚组；紫外法测定血管紧张肽转化酶（ACE）活性，免疫印迹法检测各组大鼠肺组织中的Gq/11蛋白含量。 结果： OA各组随时间延长Gq/11蛋白含量较C组分别高（19.24±2.38）%、（35.12±2.01）%、（43.93±1.62）%、（48.63±1.88）%（P<0.01），OA组除了30 min组其它各组血浆及肺组织的ACE活性显著低于C组，并随着时间延长而更低（P<0.01）。 结论： Gq/11蛋白的表达上调在ARDS肺损伤中可能占有一定地位，并参与 ARDS的发生发展。

关键词 G蛋白； 信号转导； 呼吸窘迫综合征； 大鼠
分类号 R363

Alteration of Gq/11 protein expression in lung during acute respiratory distress syndrome

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Abstract

<FONT face=Verdana>AIM: To observe the alteration of Gq/11 protein expression in lung tissue during acute respiratory distress syndrome (ARDS).METHODS: An ARDS model was established in rats by intravenous oleic acid (OA). Forty male and healthy Wistar rats were randomly divided into OA groups（OA） and control group. Furthermore, OA groups were divided into 4 subgroups of OA 30 min, OA 60 min, OA 90 min, OA 120 min after injected OA at 0.2 mL/g BW through tail vein. The rats of control group were given equal volume normal saline. Lung homogenate ACE activity were assessed during the experimental period and the concentration of Gq/11 protein were measured by Western blotting. RESULTS: Compared with control group , the concentration of Gq/11 protein of OA groups increased (19.24±2.38)% at 30 min after OA injection, (35.12±2.01)% at 60 min after OA injection, (43.93±1.62)% and (48.63±1.88)% at 90 and 120 min after OA injection, respectively. Lung homogenate ACE activity of OA groups except OA 30 min group were lower than those of control group and decreased in a time-dependent manner (P<0.01). CONCLUSION: Upregulation of the expression of Gq/11 protein may play a role in lung injury and take part in the process of ARDS. </FONT>

Key words Gq/11 protein Signal transduction Respiratory distress syndrome Rats

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