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论著

磷酸化ERK1/2对大鼠体外血小板聚集的可能作用

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摘要 目的：观察两种激动剂诱导下，MEK1/2抑制剂PD098059对大鼠体外血小板聚集及磷酸化ERK1/2的影响。方法： 采用比浊法测定血小板最大聚集率，并观察最大聚集率发生时间，以及PD098059对血小板聚集的抑制率；采用Westernblot测定ERK1/2磷酸化表达。结果： 凝血酶和ADP均可诱导血小板聚集及 ERK1/2磷酸化的表达；PD098059ADP降低血小板最大聚集率及ERK1/2磷酸化表达；凝血酶与ADP诱导的血小板最大聚集率、最大聚集率发生时间及对PDO98059的反应均有差异。结论： ERK1/2为血小板聚集的信号转导途径之一；但在不同激活剂引起的血小板聚集中所起的作用不尽相同。

关键词 有丝分裂素激活蛋白激酶类； 血小板聚集； 信号转导

分类号 R363

Effect of ERK1/2 phosphorylation on the aggregation of the rat platelets in vitro

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Abstract

<FONT face=Verdana>AIM: To study the influence of PD098059 on the rat platelet aggregation rate and the phosphorylation of ERK1/2 induced by the different agonists, and to observe the effects of phosphorylation of ERK1/2 on the platelet aggregation. METHODS: The maximal aggregation rate (MAR) was measured by nephelometry. The inhibitory rate of PD098059 and the appearing time of MAR were also observed. ERK1/2 phosphorylation was detected by Western blot. RESULTS: The phosphorylation of ERK1/2 was detected during aggregation induced by thrombin and ADP. PD098059 inhibited the MAR and phosphorylation of ERK1/2. Effects of PD098059 were different on the aggregation induced by thrombin and ADP. CONCLUSIONS: The phosphorylation of ERK1/2 is one of the cellular signal transduction mechanisms of platelets aggregation. Phosphorylation of ERK1/2 plays different roles during the platelet aggregation induced by thrombin and ADP.
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Key words Mitogen-activated protein kinases Platelet aggregation Signal transduction

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