

基础上使用。

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(收稿日期: 2004 - 12 - 21 修回日期: 2005 - 02 - 02)

(本文编辑: 李银平)

• 科研新闻速递 •

内生性白细胞介素-12 增强小鼠对大肠埃希菌的早期免疫反应

白细胞介素-12 是由 p35 和 p40 亚单位组成的致炎细胞因子异二聚体。为确定其在腹腔脓毒症中的作用,挪威研究人员将大肠埃希菌(E. coli)分别注入基因剔除小鼠和野生小鼠的腹腔。发现腹膜炎的严重程度与细菌浓度呈剂量依赖关系,表现为腹腔液和血浆中的 IL-12 p40 和 IL-12 p35 的浓度显著升高。而在感染后 6 h 其含量在两组小鼠中差异无显著性,但 20 h 后, p35 基因剔除小鼠肝组织匀浆检测发现细菌明显增加,全身感染的发生率增加。此外,还发现 p35 基因剔除小鼠腹腔液中致炎细胞因子出现高表达以及肺、肝损伤加重。这些证据表明 IL-12 参与了腹腔脓毒症时机体早期免疫反应。

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褪黑素对大鼠脓毒症时氧自由基引起的器官损伤具有保护作用

最近土耳其的研究人员发现,褪黑素对脓毒症时氧自由基引起的器官损伤具有保护作用。他们采用盲肠结扎穿孔的方法复制出脓毒症大鼠模型。于术前 30 min、术后 6 h 分别在实验组和假手术组大鼠的腹腔内注射褪黑素(10 mg/kg)或生理盐水,术后 16 h 活杀大鼠,取肝、肾、心、肺、脑组织测定丙二醛(MDA)、谷胱甘肽(GSH)水平以及髓过氧化物酶(MPO)活性。结果显示:未给予褪黑素的脓毒症大鼠 GSH 显著降低,MDA 含量和 MPO 活性显著增加(P 均 < 0.05),病理检查显示多器官损害;而给予褪黑素的脓毒症大鼠上述生化指标和器官损伤明显减轻。提示褪黑素能通过其抗氧化自由基机制减轻脓毒症时的器官损伤,因此将其用于临床脓毒性休克的辅助治疗是有益的。

任清华, 编译自《Surg Today》, 2005, 35: 52 - 59; 胡森, 审校