

论文

来氟米特及其活性代谢物对关节炎模型大鼠TNF- α 分泌及mRNA表达的影响

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摘要:

目的观察免疫抑制剂来氟米特(leflunomide, LEF)及其活性代谢产物A771726(A77)对佐剂性关节炎(AA)模型大鼠TNF- α 分泌活性及mRNA表达的影响。方法TNF- α 活性及mRNA表达用ELISA法和RT-PCR方法。结果 AA大鼠腹腔巨噬细胞(PM ϕ)呈高度活化状态, TNF- α 分泌水平明显升高。LEF明显抑制LPS诱导的大鼠PM ϕ TNF- α 释放且呈剂量依赖关系。体外用A77后TNF- α mRNA表达量降低。结论LEF和A77对AA模型大鼠TNF- α 分泌活性及mRNA表达有抑制作用, 此可能为其抗炎和免疫抑制作用的机制之一。

关键词: 来氟米特 活性代谢物 TNF- α mRNA表达 佐剂性关节炎大鼠

EFFECTS OF LEFLUNOMIDE AND ITS ACTIVE METABOLITE ON THE PRODUCTION AND mRNA EXPRESSION OF TNF- α IN PERITONEAL MACROPHAGES AND SYNOVIAL CELLS WITH ADJUVANT ARTHRITIS IN RATS

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Abstract:

AIMTo observe the effects of leflunomide (LEF), an isoxazole immunomodulatory agent and its active metabolite, A771726, on the production and mRNA expression of TNF- α in peritoneal macrophages and synovial cells with adjuvant arthritis rats and to further investigate the immunosuppression effects of leflunomide and its mechanisms. METHODSELISA methods were used for assaying the levels of TNF- α . The RT-PCR methods were used for measuring the expression of TNF- α . RESULTSThe production of TNF- α was increased in the supernatant of PM ϕ in adjuvant arthritis (AA) model rat. LEF (5, 10, 25 mg·kg⁻¹, ig) was shown to inhibit the release of TNF- α from peritoneal macrophages induced by LPS and the inhibitory effects were in a dose-effect relevance manner. A parallel investigation of cytokine mRNA expression was undertaken using semi-quantitative reverse transcribed polymerase chain reaction (RT-PCR) to follow the kinetics of cytokine appearance in PM ϕ and synovial membrane tissue cells obtained from AA/normal rats treated with A771726. The results of RT-PCR from macrophages and synovial membrane tissue cells of AA rats at the peak of inflammatory phase showed that TNF- α mRNA expression levels were higher than those of normal rats, while the expression of TNF- α mRNA was reduced by treating with A771726 *in vitro*. On the other hand, the TNF- α mRNA expression showed kinetics very similar to those obtained by ELISA technique which measured protein expression. CONCLUSIONLeflunomide and its active metabolite, A771726, was found to inhibit the production and mRNA expression of TNF- α in peritoneal macrophages and synovial cells with adjuvant arthritis rats model. It might be involved in the mechanisms of its anti-inflammation and immunosuppression.

Keywords: active metabolite TNF- α mRNA expression adjuvant arthritis rats leflunomide

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1. 姚宏伟;金涌;李俊;张运芳;李常玉;徐叔云.来氟米特对免疫性肝损伤的影响[J].药学学报, 2001,36(10): 727-730
2. 鞠佃文;郑钦岳;王洪斌;方军.来氟米特抑制PAF诱导的兔滑膜细胞DNA合成及PAF自大鼠腹腔巨噬细胞中产生[J].药学学报, 1994,29(2): 90-94

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