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论文

慢性心力衰竭患者外周血中Th17及Treg细胞的检测及意义

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摘要：

目的 探讨慢性心力衰竭(CHF)患者外周血中Th17细胞、CD4+CD25+Foxp3+调节性T细胞(Treg)的变化及意义。方法 49例CHF患者按照NYHA心功能分级分为CHF1组(NYHA心功能Ⅰ～Ⅱ级，n=21)和CHF2组(NYHA心功能Ⅲ～Ⅳ级，n=28)。18例健康体检者作为对照组。采用流式细胞分析法检测外周血中Th17、Treg细胞占CD4+T细胞的比例。结果 CHF1组和CHF2组患者外周血中Th17/CD4+T细胞的比例明显高于对照组(P均<0.01)，CHF2组亦明显高于CHF1组(P<0.01)；CHF1组和CHF2组患者外周血中Treg/CD4+T细胞的比例明显低于对照组(P均<0.01)，CHF2组亦明显低于CHF1组(P<0.05)；Th17/Treg的比值随心功能的减低而增高(P<0.01)。结论 CHF患者外周血中存在Th17/Treg失衡，且与心功能有一定关系，Th17/Treg失衡可能参与了CHF的发生发展。

关键词： 心力衰竭;Th17细胞;CD4+CD25+Foxp3+T细胞

Detection and significance of Th17 and Treg cells in patients with chronic heart failure

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Abstract:

Objective To investigate the change of Th17 cells and CD4+CD25+Foxp3+ regulatory T cells (Treg) in patients with chronic heart failure (CHF). Methods The frequencies of Th17 cells and Treg cells were detected in 49 patients with CHF and 18 healthy controls by flow cytometry. And the 49 patients were divided into 2 groups according to NYHA heart function class: CHF1 group (NYHA Ⅰ-Ⅱ, n=21) and CHF2 group (NYHAⅢ-Ⅳ, n=28). Results The frequencies of Th17 cells were significantly higher in patients with poor heart function (CHF1 group and CHF2 group) than in those of normal heart function (the healthy controls) (P<0.01), and the frequencies in CHF2 group were significantly higher than in CHF1 group (P<0.01). But the change of Treg cells was totally opposite. The frequencies of Treg cells were significantly lower in CHF1 group and CHF2 group than in the healthy controls (P<0.01), the frequencies in CHF2 group were significantly lower than in CHF1 group (P<0.05), and we confirmed that the ratios of Th17/Treg increased with decrease of the heart function (P<0.01). Conclusion Th17/Treg imbalance existed in patients with CHF, so it may play a potential role in the onset and development of CHF.

Keywords: Heart failure; Th17 cells; CD4+CD25+Foxp3+T cells

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