

论著

急性哮喘患者外周血中Th17细胞的变化及其意义

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摘要:

目的: 探讨哮喘急性发作期患者外周血中Th17细胞的变化及其与哮喘严重程度的关系。方法: 选取轻度急性哮喘患者、重度急性哮喘患者和健康对照者各10名。从血清单个核细胞中分离T淋巴细胞, 流式细胞仪检测阳性Th17细胞率, 分析其与哮喘严重程度的关系。结果: 轻度急性哮喘组和重度急性哮喘组外周血阳性Th17细胞均较健康对照组增高($P < 0.05$), 而重度哮喘组高于轻度哮喘组($P < 0.05$)。重度哮喘组外周血IL-17水平明显高于轻度哮喘组和健康对照组($P < 0.05$)。外周血中Th17阳性细胞数与急性哮喘严重程度呈正相关($r = 0.869$, $P < 0.05$)。结论: 急性哮喘患者外周血Th17细胞表达增加, 且与其病情的严重程度呈正相关。

关键词: 哮喘 Th17细胞 白细胞介素-17 气道炎症

Change and significance of peripheral blood Th17 cells in patients with acute asthma

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Abstract:

Objective To observe the change of peripheral blood Th17 cells and relationship between the severity and Th17 cells in patients with acute asthma. Methods We recruited patients with mild acute asthma ($n = 10$) and severe acute asthma ($n = 10$), and healthy volunteers ($n = 10$). T-lymphocytes were collected from the peripheral blood mononuclear cells (PBMC). Flow cytometer (FCM) was used to detect the expression of peripheral blood Th17 cells. IL-17 levels in the peripheral blood were measured by enzyme-linked immunosorbent assay (ELISA). Results The rate of positive Th17 cells of peripheral blood in the severe acute asthma group was higher than that in the mild acute asthma group ($P < 0.05$) and the rate of positive Th17 cells of peripheral blood in healthy volunteer group were the lowest among all groups ($P < 0.05$, respectively). The level of IL-17 in the peripheral blood of patients with severe acute asthma increased significantly compared with that in patients with mild acute asthma and healthy volunteers ($P < 0.05$). The positive Th17 cells of peripheral blood in patients with acute asthma were positively correlated with the severity of acute asthma ($r = 0.869$, $P < 0.05$). Conclusion The positive rate of Th17 cells in the peripheral blood increases in patients with acute asthma and has positive correlation with the severity of acute asthma.

Keywords: asthma; Th17 cell; interleukin-17; airway inflammatory

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