托法替布联合甲氨蝶呤对类风湿性关节炎患者肠道菌群的调节作用及临床疗效Δ

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摘 要 目的 探讨托法替布联合甲氨蝶呤(MTX)对类风湿性关节炎(RA)患者肠道菌群的调节作用及临床疗效。**方法** 回顾性分析2022年1月至2025年6月邢台市人民医院收治的182例RA患者的病历资料,根据治疗方案不同分为对照组(88例,接受MTX单药治疗)和观察组(94例,接受托法替布联合MTX治疗)。比较两组患者治疗前和治疗12周后的肠道菌群丰度、炎症与免疫学指标[C反应蛋白(CRP)、红细胞沉降率(ESR)、类风湿因子(RF)及抗环瓜氨酸肽抗体(anti-CCP)]、临床疗效指标[美国风湿病学会20应答率(ACR20)、28个关节疾病活动度评分(DAS28)、健康评估问卷(HAQ)评分]及治疗期间不良反应发生情况。**结果** 治疗后,两组患者的乳杆菌、双歧杆菌丰度均较治疗前显著升高,肠球菌、肠杆菌丰度,CRP、ESR、RF、anti-CCP水平,DAS28、HAQ评分均较治疗前显著降低($P<0.05$),其中观察组的改善程度均较对照组更显著($P<0.05$)。观察组患者的ACR20达标率显著高于对照组(81.91% vs. 56.82%,$P<0.05$)。两组患者不良反应发生率的差异无统计学意义($P>0.05$),主要表现为胃肠道反应及肝功能异常。**结论** 托法替布联合MTX可有效改善RA患者肠道菌群平衡,提高益生菌丰度,降低条件致病菌丰度,从而改善机体的免疫与炎症状态;同时,该联合方案可提高疗效、改善疾病活动度与功能状态,且安全性良好。

关键词 类风湿性关节炎;托法替布;甲氨蝶呤;肠道菌群;临床疗效

Regulatory effects of tofacitinib combined with methotrexate on gut microbiota and clinical efficacy in patients with rheumatoid arthritis

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ABSTRACT OBJECTIVE To investigate the regulatory effects of tofacitinib combined with methotrexate (MTX) on gut microbiota and the clinical efficacy of this regimen in patients with rheumatoid arthritis (RA). **METHODS** A retrospective analysis was conducted on the clinical data of 182 patients with RA admitted to Xingtai People's Hospital from January 2022 to June 2025. The patients were divided into a control group ($n=88$, treated with MTX monotherapy) and an observation group ($n=94$, treated with tofacitinib combined with MTX) based on their treatment regimen. Gut microbiota abundance, inflammatory and immunological indicators [C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), rheumatoid factor (RF), and anti-cyclic citrullinated peptide antibody (anti-CCP)], clinical efficacy indicators [American College of Rheumatology 20% response rate (ACR20), Disease Activity Score in 28 Joints (DAS28), and Health Assessment Questionnaire (HAQ) score], and adverse reactions during treatment were compared between the two groups before and after 12 weeks of treatment. **RESULTS** After treatment, the abundance of *Lactobacillus* and *Bifidobacterium* were significantly increased in both groups compared with before treatment, whereas the abundances of *Enterococcus* and *Enterobacter*, as well as the levels of CRP, ESR, RF, anti-CCP, DAS28 score, and HAQ score, were significantly decreased ($P<0.05$). The degree of improvement in the observation group was significantly greater than that in the control group ($P<0.05$). The ACR20 response rate in the observation group was significantly higher than that in the control group (81.91% vs. 56.82%, $P<0.05$). There was no statistically significant difference in the incidence of adverse reactions between the two groups ($P>0.05$), and the main adverse reactions were gastrointestinal reactions and abnormal liver function. **CONCLUSIONS** Tofacitinib combined with MTX can effectively improve gut microbiota balance in patients with RA by increasing the abundance of probiotics and reducing the abundance of opportunistic pathogenic bacteria, thereby improving immune and inflammatory status. In addition, this combination regimen can enhance clinical efficacy, reduce disease activity, and improve functional status, with a favorable safety profile.

KEYWORDS rheumatoid arthritis; tofacitinib; methotrexate; gut microbiota; clinical efficacy

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