Influence of Bifidobacterium on immune function and Fas/FasL expression of patients with ulcerative colitis

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View from specialist: It is creative, and of certain scientific and educational value.

[ABSTRACT] Objective: To investigate effects of Bifidobacterium on ulcerative colitis and its influence on immune function and Fas / FasL expression. Methods: A total of 96 patients with ulcerative colitis were randomly divided into observation groups (n=48) and control group (n=48) according to a random number table. Oral olsalazine treatment was applied for control group, and the observation group was given combines pieces of viable Bifidobacterium quadruple therapy based on the treatment of the control group. A course was consisted of two weeks. After two consecutive treatment courses, clinical efficacy of two treatment groups were evaluated and, effects on serum inflammatory cytokines, immune function, C-reactive protein and Fas/FasL expression were also evaluated. Results: The total efficiency of the observation group was significant higher than that of the control group. After treatment IL-1, IL-6, IL 8 and TNF-α levels of the observation group were significantly lower than that before treatment, and these levels were also lower than that of the control group after treatment (P<0.05). After treatment, CD4⁺, CD4⁺/CD8⁺ expression levels were significant higher than that before treatment, and these expression levels were also higher than that of the control group after treatment. After treatment, Fas, FasL expression was significantly lower than before treatment in both groups (P<0.05); C-reactive protein levels were also significant lower than that before treatment in both groups, and its level in observation group was significant lower than that of the control group (P<0.05). No obvious adverse reactions occurred in both groups. Conclusion: Bifidobacterium quadruple therapy combining with Olsalazin is effective on ulcerative colitis, bifidobacterium quadruple therapy can help to restore CD4⁺/CD8⁺ ratio back to be normal, and reverse abnormal expression of Fas/FasL.

[KEY WORDS] Ulcerative colitis; Tetralogy of viable Bifidobacterium piece; Olsalazine; Immune function; Fas/FasL expression