



世界胃肠病学杂志社

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PO Box 2345, Beijing 100023, China
Telephone: +86-10-85381892
Fax: +86-10-85381893
Email: wjgd @ wjgnet.com
<http://www.wjgnet.com>

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Different therapies for various types of ulcerative colitis in China: An analysis of 102 cases

Abstract

AIM: To evaluate different therapeutic approaches for Chinese patients with different types of ulcerative colitis.

MATERIALS AND METHODS: A total of 102 patients with chronic relapse type, first episode type and refractory type ulcerative colitis (UC) were included in this study. Chronic relapse type UC patients were divided into olsalazine treatment group ($n = 21$) and salazosulfapyridine (SASP) group ($n = 21$). First episode type UC patients were divided into Heartleaf houttuynia herb treatment group ($n = 21$) and SASP group ($n = 21$). Patients with refractory UC ($n = 18$) who were unresponsive to high-dose prednisolone and sulfasalazine therapy for more than one month were treated with Kangshuanling (7 200 U/d). Prednisolone was gradually stopped, and sulfasalazine was maintained. Clinical efficacy and safety were observed in all groups, and ultrastructure of colonic mucosa, ICAM-1 and the pressure of distant colon were studied in Heartleaf houttuynia herb group. Gastrointestinal symptoms including stool frequency and rectal bleeding were observed, and colonoscopy and histological examination were performed. In addition, the expression of CD62p, CD63, CD54 and Pgp-170, and TXA₂, blood platelet aggregation rate and thrombosis length were assessed for patients with refractory UC.

RESULTS: In patients with chronic relapse type UC, the overall clinical efficacy, and symptomatic remission, histologic remission and colonoscopic remission were significantly better in olsalazine group than in SASP group ($u = 2.32, P = 0.02 < 0.05$). The side effects of gastrointestinal tract were less in olsalazine group than in SASP group except for frequency of watery diarrhea. No other side effects were observed in olsalazine group while increased ALT, decreased WBC and skin eruption were observed in SASP group. Two patients relapsed in olsalazine group while eight cases relapsed in SASP group during the follow-up period (from six months to one year). In patients with first episode type UC, the clinical efficacy was better in Heartleaf houttuynia herb group than in SASP group ($u = 2.80, P = 0.005 < 0.01$). The times for stool frequency recovering to normal (5.6 ± 3.3 d), blood stool disappearance (6.7 ± 3.8 d) and abdominal pain disappearance (6.1 ± 3.5 d) were all shorter in Heartleaf houttuynia herb group than in SASP group (9.5 ± 4.9 d, 11.7 ± 6.1 d and 10.6 ± 5.3 d, respectively, $t = 2.97, P = 0.005 < 0.01$). Heartleaf houttuynia herb inhibited colonic epithelial cell apoptosis and the expression of ICAM-1 (from $45.8 \pm 5.7\%$ to $30.7 \pm 4.1\%$, $t = 2.42, P = 0.02 < 0.05$). Compared with normal controls, the mean promotive speed of contraction wave increased (4.6 ± 1.6 cm/min vs 3.2 ± 1.8 cm/min, $t = 2.32, P = 0.03 < 0.05$), and the mean amplitude of the wave decreased (14.2 ± 9.3 kPa vs 18.4 ± 8.0 kPa, $t = 2.14, P = 0.04 < 0.05$) in active UC patients. After treatment with Heartleaf houttuynia herb, these two indexes were improved significantly (17.3 ± 8.3 kPa, 3.7 ± 1.7 cm/min, $t = 2.41, P = 0.02 < 0.05$). In normal controls, the postprandial pressure at sigmoid (2.9 ± 0.9 kPa) was higher than those at descending colon (2.0 ± 0.7 kPa) and splenic flexure (1.7 ± 0.6 kPa). In active UC patients the colonic pressure (1.5 ± 0.5 kPa, 1.4 ± 0.6 kPa and 1.3 ± 0.6 kPa, respectively) decreased significantly ($t = 2.33, P = 0.03 < 0.05$). After treatment with Heartleaf houttuynia herb, the colonic pressure (2.6 ± 0.8 kPa, 1.8 ± 0.6 kPa and 1.6 ± 0.5 kPa, respectively) returned to normal. The pain threshold of distant colon (67.3 ± 18.9 mL) in active UC patients decreased significantly, compared with that in normal controls (216.2 ± 40.8 mL, $t = 2.42, P = 0.02 < 0.05$), which returned close to normal after treatment with Heartleaf houttuynia herb (187.4 ± 27.2 mL). In the 18 refractory UC patients with platelet activation, 16 patients achieved clinical remission after more than 4 wk of combined Kangshuanling and sulfasalazine therapy, with a significant improvement in all disease parameters observed ($t = 2.58, P = 0.02 < 0.05$).

CONCLUSION: Different therapies should be given to different types of UC, based on the characteristics of UC, which may results in satisfactory clinical efficacy.