Clinical Observations

Clinical Observations on 100 Cases of Ulcerative Colitis Treated with the Method of Clearing Away Heat, Expelling Dampness, Promoting Blood Circulation and Healing Ulcer

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Objective: To observe the clinical therapeutic effect of the method of clearing away heat, expelling dampness, promoting blood circulation and healing ulcer on ulcerative colitis. Methods: The 100 cases were randomly divided into a control group of 45 cases treated with retention enema of the enterosoluble tablet sulfasalazine once every evening and a treatment group of 55 cases treated with retention enema of the decoction for clearing away heat, expelling dampness, promoting blood circulation and healing ulcer once every evening. The patients in both groups orally took Chinese drug for basic treatment for 30 days as a course. After treatment, the clinical therapeutic effects in the 2 groups were compared and changed symptoms in intestinal mucosa were observed under endoscope. Results: The total effective rate of treatment group was better in relieving symptoms of TCM syndrome (90.9%) and intestinal mucosa (83.3%) than that of control group (68.9%, 56.3%) (P<0.01 or P<0.05). Conclusion: With good therapeutic effect on ulcerative colitis, Qinghua Huoxue Lianyang therapy (clearing away heat, expelling dampness, promoting blood circulation and healing ulcer) can obviously repair intestinal mucosa.

Key words: Qinghua Huoxue Lianyang therapy; herbal enema; ulcerative colitis;

With its incidence obviously increasing in China, ulcerative colitis (UC) gradually becoming a common disease and listed by WHO as one of the refractory diseases is a key subject of research into digestive disease at present. The treatment of 55 UC cases with the method of clearing away heat, expelling dampness, promoting blood circulation and healing ulcer is reported as follows.

CLINICAL MATERIALS

General Data
The 36 outpatients and 64 inpatients in Jiangsu Provincial TCM hospital from October 2004 to July 2007 were divided at random into 2 groups. Among 55 cases in the treatment group, there were 30 males and 25 females aged 43.06±16.28 on average with an average illness course of 55.02±90.90 months, 28 mild cases, 22 moderate cases and 5 severe cases, and 11 cases of primary type, 43 cases of chronic relapse type and 1 case of chronic lasting type. Among 45 cases in the control group, there were 22 males and 23 females aged 44.20±14.66 on average with an average illness course of 38.13±59.38 months, 25 mild cases, 17 moderate cases and 3 severe cases, and 9 cases of primary type and 36 cases of chronic relapse type. There was no statistical difference (P>0.05) in sex, age, illness course, illness condition and clinical type, hence comparability.

Diagnostic Standard
The standard for diagnosing TCM syndrome of damp
heat retained in the body is drawn up in reference to the Principle for Instructing Clinical Research into New Chinese Drugs stipulated in 2002. Diagnostic standard in Western medicine is worked out in reference to the proposal on the Standard for Diagnosing and Treating Inflammatory Intestinal Disease put forward in 2002 at a national academic symposium on inflammatory intestinal disease.

Inclusive and Exclusive Standard

The included are patients conforming to the standard for diagnosing UC at active stage in Western medicine, patients conforming to the standard for diagnosing TCM syndrome of damp heat retained in the body, patients aged 16–70 and patients being fully informed for the test.

The excluded are patients with severe complications such as local enterostenosis, intestinal obstruction, rectal polyp, toxic dilation of colon, rectal cancer and anal disease, women in pregnancy or in preparation for pregnancy and in lactation, patients with allergic constitution and allergy to various drugs, patients with severe primary disease in the liver, kidney, hematopoietic system, endocrine system and mental problems, and patients with so severe condition that it is difficult to judge exactly the effectiveness and safety.

METHODS

Therapeutic Method

The patients in both groups orally took the decoction of a basic recipe consisting of Huang Lian (Rhizoma Coptidis) 3g, Huang Qin (Radix Scutellariae) 10g, Bai Jiang Cao (Herba Patriniae) 15g, Wei Mu Xiang (Radix Aucklandiae) 10g, Chao Dang Gui (Radix Angelicae Sinensis) 10g, Bai Shao (Radix Paeoniae Alba) 15g, Di Yu (Radix Sanguisorbae) 15g, Bai Lian (Radix Ampelopsis) 10g, Rou Gui (Fructus Chebulae) 2g (to be decocted later) and Sheng Gan Cao (Radix Glycyrrhizae) 5g.

Modification: Bai Tou Weng (Radix Pulsatillae) 10g, Qian Cao (Radix Rubiae) 15g and Huai Hua (Flos Sophorae) 15g were added for severe bloody stool. Xu Change Qing (Radix Cynanchi Paniculati) 15g and Yan Hu Suo (Rhizoma Corydalis) 10g were added for severe abdominal pain. Jin Yin Hua (Flos Lonicerae) 10g and Jing Jie (Herba Schizonepetae) 10g were added for fever. Huang Qin (Radix Scutellariae) was removed and Bai Zhu (Radix Atractylodis Macrocephalae) 10g and Fu Ling (Poria) 15g were added for alleviated purulent and bloody stool.

In the control group, in addition to the basic treatment, the enterosoluble tablet sulfasalazine (produced by Shanghai Sanwei Changjiang Biochemical Pharmaceutical Factory) 1.5 g solved in 100 ml normal saline was used for retention enema at 39–40°C once every evening for 30 days as a course of treatment.

In the treatment group, apart from the basic treatment, 1.5 g of Xi Lei San (was added to 100 ml decoction consisting of Ku Shen (Radix Sophorae Flavescentis) 10g, Huang Bai (Cortex Phellodendri) 20g, Di Yu (Radix Sanguisorbae) 30g, Bai Ji (Radix Rhizoma Bletillae) 10g and He Zi (Fructus Chebulae) 15g for retention enema at 39–40°C once every evening for 30 days as a course of treatment.

The patients in both groups stopped taking other drugs during the treatment. The symptoms were observed before and after treatment. Enteroscopic examination was carried out before treatment and within 6 weeks after treatment with the biopsy sample taken at the same place as closer as possible. Researchers were responsible for endoscopy, pathological examination, record and statistical processing.

Observation Index

1. Clinical symptoms

Major symptoms of purulent and bloody stool,
diarrhea and abdominal pain, and minor symptoms of abdominal distension, tenesmus and anal burning heat are scored respectively with scoring standard worked out in reference to the Principle for Guiding clinical research into the treatment of chronic Non-specific UC with New Chinese Drugs in the “Principle of Guiding Clinical Research into New Chinese Drugs” stipulated in 2002.2

2. Grading standard under enteroscope
Scoring was based on Baron-Connell-Jones grading method,4 grade I (score 0): obvious vascular stria without spontaneous or contact bleeding; grade II (score 1): abnormal mucosa but without bleeding; grade III (score 2): moderate contact bleeding in mucosa; grade IV (score 3): severe spontaneous or contact bleeding in mucosa; and grade V (score 4): obvious ulceration with spontaneous bleeding.

3. Grading standard in histology
According to Truelove-Richards grading method,5 grade I (score 1) means no obvious inflammation, possible structural alteration in chronic pathological change and infiltration focus of small lymphocytes but without acute inflammation, crypt abscess or damaged mucosal epithelium; grade II (score 2) means mild or moderate inflammation, hyperemia, edema, vascular stria in disorder, increase in acute and chronic inflammatory cells but with intact mucosal epithelium; grade III (score 3) means severe inflammation, obvious infiltration of acute and chronic inflammatory cells, crypt abscess, ulceration in mucosal surface and purulent exudates.

**Standard for Evaluating Therapeutic Effect**

1. Standard for evaluating comprehensive therapeutic effect on TCM syndromes
The standard has been drawn up in reference to the Principle of Instructing Clinical Research into New Chinese Drugs.2 Cured: TCM symptoms and signs disappear or basically disappear and accumulated score of signs decreases by ≥70% but <95%. Markedly effective: symptoms and signs relieved and accumulated score of signs decreases by ≥30% but <70%. Ineffective: symptoms and signs have not been obviously relieved or even have been aggravated and accumulated score decreases by <30%.

2. Standard for evaluating therapeutic effect on pathological change in mucosa
The standard is worked out in reference to the Principle of Guiding Clinical Research into New Chinese Drugs.2 Cured (score 0) means that in enteroscopy, mucosa has returned to normal or ulcer has formed scar. Markedly effective means that in enteroscopy, mucosa has returned to grade II or score has decreased by more than 2 points. Effective means that in enteroscopy, mucosa has returned to grade I or score has decreased by 1 point. Ineffective means that effective standard has not been reached or illness condition has been aggravated or there is no change in accumulated score.

3. Standard for evaluating therapeutic effect in histopathology
In the light of reference,6 cured, complete alleviation, (grade 0) means that in enteroscopy, mucosa has returned to normal or ulcer has formed scar. Markedly effective means that mucosa has returned to grade I or more. Effective means that mucosa has improved but not reached grade I. Ineffective means that mucosa has not improved to the above-mentioned standard.

**Statistical Method**
SPSS13.0 software for statistical analysis is used to process all the data. χ² test is used for enumeration data and t test for measurement data.

**RESULTS**

**Comparison of Therapeutic Effects on TCM Syndromes between the Two Groups**
As shown in Table 1, there was statistical difference
(P<0.01) in the total effective rate, the cured and obviously effective rate between the 2 groups with the therapeutic effect on TCM syndromes in the treatment group better than that in the control group.

<table>
<thead>
<tr>
<th>Group</th>
<th>Cases</th>
<th>Cured</th>
<th>Markedly effective</th>
<th>Effective</th>
<th>Ineffective</th>
<th>Cured-markedly effective</th>
<th>Total effective rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>55</td>
<td>16 (29.1)</td>
<td>20 (36.4)</td>
<td>14 (25.4)</td>
<td>5 (9.1)</td>
<td>36 (65.5)</td>
<td>50 (90.9)</td>
</tr>
<tr>
<td>Control</td>
<td>45</td>
<td>5 (11.1)</td>
<td>10 (22.2)</td>
<td>16 (35.6)</td>
<td>14 (31.1)</td>
<td>15 (33.3)</td>
<td>31 (68.9)</td>
</tr>
</tbody>
</table>

Comparison of Therapeutic Effects on Intestinal Mucosa between the Two Groups
As shown in Table 2, there was statistical difference (P<0.05) in the total effective rate, cured / markedly effective rate between the 2 groups with the therapeutic effect on intestinal mucosa in the treatment group better than that in the control group.

<table>
<thead>
<tr>
<th>Group</th>
<th>Cases</th>
<th>Cured</th>
<th>Markedly-effective</th>
<th>Effective</th>
<th>Ineffective</th>
<th>Cured-markedly effective</th>
<th>Total effective rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>30</td>
<td>8 (26.7)</td>
<td>7 (23.3)</td>
<td>10 (33.3)</td>
<td>5 (16.7)</td>
<td>15 (50.0)</td>
<td>25 (83.3)</td>
</tr>
<tr>
<td>Control</td>
<td>16</td>
<td>2 (12.5)</td>
<td>1 (6.3)</td>
<td>6 (37.5)</td>
<td>7 (43.8)</td>
<td>3 (18.8)</td>
<td>9 (56.3)</td>
</tr>
</tbody>
</table>

Comparison of Therapeutic Effects in Mucosal Histopathology between the Two Groups
As shown in Table 3, there was no statistical difference (P>0.05) in the total effective rate, the cured and obviously effective rate in mucosal histopathology between the 2 groups.

<table>
<thead>
<tr>
<th>Group</th>
<th>Cases</th>
<th>Cured</th>
<th>Markedly-effective</th>
<th>Effective</th>
<th>Ineffective</th>
<th>Cured-markedly effective</th>
<th>Total effective rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>30</td>
<td>7 (23.3)</td>
<td>13 (43.3)</td>
<td>2 (6.8)</td>
<td>8 (26.8)</td>
<td>20 (66.7)</td>
<td>22 (73.3)</td>
</tr>
<tr>
<td>Control</td>
<td>16</td>
<td>1 (6.3)</td>
<td>7 (43.7)</td>
<td>1 (6.3)</td>
<td>7 (43.7)</td>
<td>8 (50.0)</td>
<td>9 (56.3)</td>
</tr>
</tbody>
</table>

Observations on Safety Indexes
No abnormality was found in ALT, BUN, SCr and Hb before and after treatment in the two groups. There was no statistical difference (P>0.05) in ALT, BUN, SCr and Hb before and after treatment in the two groups. Medication had no obvious influence on the functions of the liver and kidney in the two groups.

DISCUSSION
UC, characterized clinically by abdominal pain, purulent and bloody stool and pyoderma gangraenosum, by bleeding, erosion and ulcer in mucosa under enteroscope, and by pathologically infiltration of inflammatory cells, crypt abscess and decrease in goblet cells, is very similar to large carbuncle mainly characterized by redness, swelling, heat, pain, pus and ulcer. Therefore, it is termed “intestinal ulcer” in TCM. On the basis of congenital defect and dysfunction of the spleen and stomach, the disease is caused by damp heat coming from outside or generated by taking irregular diet and overeating of greasy, sweet and pungent food. Damp heat accumulated in the intestine can give rise to qi stagnation and blood stasis and damage fat layer and blood vessel to cause ulcer with purulent and bloody stool. At the early stage or attack stage of the disease, domination of pathogen is the main cause with obvious signs of damp heat. Without treatment, the disease can impair the spleen, stomach, liver and kidney to develop into syndrome of deficiency complicated with excess which is difficult to cure. By drawing experience in surgical treatment of large carbuncle and on the basis of clearing away heat, removing dampness and promoting blood circulation, the disease can be
treated with the method of generating muscle and healing ulcer. Chinese drugs for enema to treat UC can directly produce the effect at the affected site to promote the healing of ulcer and enhance the therapeutic effect.

In the recipe for enema, Ku Shen (Radix Sophorae Flavescentis) is used as monarch drug to clear away heat and remove dampness, Di Yu (Radix Sanguisorbae) can clear away heat from blood, remove toxin, stop bleeding, inhibit bacteria, arrest diarrhea and resolve inflammation, and Huang Bai (Cortex Phellodendri) can clear away heat, remove dampness, dispel toxin and consolidate the kidney-yin. Modern research has confirmed that Huang Bai (Cortex Phellodendri) can resist bacteria, eliminate inflammation and inhibit delayed hypersensitivity induced by cellular immunity. Bai Ji (Rhizoma Bletillae) can stop bleeding, eradicate swelling, generate muscle and astringe ulcer. He Zi (Fructus Chebulae) can astringe the lung and intestine and make qi flow downward. Xi Lei San (錫離散) can clear away heat from blood, remove dampness, dispel toxin, promote blood circulation, eliminate blood stasis, eradicate erosion and generate muscle. Local enema to make the drug directly taking effect at the affected site can facilitate eliminating focus and repairing mucosa.

Clinical research has shown that the method of clearing away heat, removing dampness, promoting blood circulation and healing ulcer can obviously relieve symptoms of purulent and bloody stool, diarrhea, abdominal pain and distension, tenesmus and anal burning heat, noticeably alleviate mucosal inflammation and pathological inflammation of intestinal mucosa and heal ulcer of patients with ulcerative colitis. Because of unsatisfactory therapeutic effects of hormone, immunosuppressant and salicylic acid preparation on the disease with severe side effects, the achievement of our research has bright prospect of application. Due to limited conditions, no blind method has been used to carry out clinical observations on therapeutic effect, no many cases have been observed, and differences in therapeutic effect between groups have not been shown completely. Since the data of enteroscopic reexamination, are incomplete due to some sufferings brought by enteroscopy to patients, further research should be carried out...

REFERENCES


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