



Observation on the efficacy of Etiasa in combined with mesalazine suppository in the treatment of ulcerative colitis

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ABSTRACT

Objective: To analyze the clinical effect of Etiasa (mesalazine slow-release granules) in combined with mesalazine suppository in the treatment of ulcerative colitis and the medication safety. **Methods:** A total of 82 patients with ulcerative colitis who were admitted in our hospital from June, 2013 to January, 2015 were included in the study and randomized into the observation group ($n=42$) and the control group ($n=40$). The patients in the two groups were orally given Etiasa. The patients in the observation group were given additional mesalazine suppository. Medication for 4-6 weeks was regarded as one course. The symptom relieving, the total remission rate of mucosal lesions after one course, the change of DAI 3 and 6 months after treatment, and the serum IL-8 and IL-10 levels before and after treatment in the two groups were compared. **Results:** The comparison of quantitative scoring of clinical efficacy and DAI before treatment between the two groups was not statistically significant. The above indicators after treatment in the observation group were significantly reduced and the reduced degree was significantly greater than that in the control group. The total effective rate in the observation group was significantly higher than that in the control group. IL-8 level after treatment in the observation group was significantly lower than that in the control group, while IL-10 level was significantly higher than that in the control group. The comparison of the occurrence rate of adverse reactions during the treatment process between the two groups was not statistically significant. **Conclusions:** Etiasa in combined with mesalazine suppository in the treatment of ulcerative colitis can increase the local drug concentration, and correct the imbalance of anti-inflammatory cytokines and proinflammatory cytokines, with a significant efficacy.

1. Introduction

Ulcerative colitis is a common anorectal disease, belonging to the inflammatory bowel disease, with main involvement of colon, rectum, sigmoid mucosa, and submucosa, and main clinical manifestations of abdominal pain, increased defecation times, and faeces with pus blood or mucus. With no timely treatment, ulcerative colitis can cause water-electrolyte imbalance, and can even induce intestinal perforation and other severe complications in a serious condition[1,2]. Due to the unclear pathogenesis, there is no specific treatment for ulcerative colitis, resulting in disease course delaying with easy recurrence, which can severely affect the

patients' living qualities. Sulfasalazine is commonly used for the treatment of ulcerative colitis, with a certain efficacy; however, after entering the intestine, it can be decomposed into 5-aminosalicylic acid and sulfapyridine which can produce a side effect to the liver. Mesalazine, a new type 5-aminosalicylic acid, can be used for the treatment of ulcerative colitis[3-5]. The study is aimed to evaluate the therapeutic effect and safety of mesalazine in the treatment of ulcerative colitis.

2. Materials and methods

2.1. Clinical materials

A total of 82 patients with ulcerative colitis who were admitted in our hospital from June, 2013 to January, 2015 were included in the study, among which 64 were male, and 18 were female; aged from 21 to 67 years old, with an average of (43.2 ± 13.3) years old; course from 6 to 11 months, with average course of (8.8 ± 1.8)

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months; 46 were mild and 36 were moderate according to the chief complaints. The patients were in accordance with the related criteria of the Diagnosis and Treatment Consensus of Inflammatory Bowel Disease formulated by the Gastroenterology Branch of Chinese Medical Association [6]. Exclusion criteria: (1) those who had severe ulcerative colitis, autoimmune diseases, and tumors; (2) those who were merged with severe heart, liver, kidney, other important organ failure, and hematological and endocrine system lesions; (3) those who were pregnant or at the lactation period; (4) those who had taken 5-ASA preparations, immunosuppressants, or glucocorticoids recently.

2.2. Methods

The patients were randomized into the observation group ($n=42$) and the control group ($n=40$). The patients in the two groups were orally given Etiasa (produced by Shanghai Ethypharm Co. Ltd., Approval No. H20143164), 1.0 g/time, 4 times a day, 4 weeks for the mild patients, and 6 weeks for the moderate patients. After taking 2 weeks, the dosage was adjusted to 2 times a day. The patients in the observation group were given additional mesalazine suppository. After emptying the faeces, 1 mesalazine suppository (produced by Vifor AG Zweigniederlassung Medichemie Ettingen, Registration No. H20100126) was used for enema, 2 times a day, 4 weeks for the mild patients, and 6 weeks for the moderate patients. After 5-week treatment, the dosage was adjusted to 1 time a day. The raw and cold food, spicy food, seafood, milk, and other food which could worsen the condition were forbidden during the treatment process.

2.3. Observation indicators

The defecation times, and the improvement of features and symptoms before and after treatment in the two groups were observed. Evaluation criteria[7]: 0 score: 1-2 defecation times a day, normal feature, no bloody stools, abdominal pain, and abdominal distention; 1 score: 3 defecation times a day, soft stools, accompanied by a small amount of blood stools and mild abdominal pain; 2 scores: 4-5 defecation times a day, in a paste shape, obvious bloody stools, and moderate abdominal pain; 3 scores: more than 6 defecation times a day, mainly of watery stools and bloody stools, and abdominal pain. The colonoscopy microscopy evaluation indicators were referring to Baron's grading[8]. ELISA was used to detect the serum IL-8 and IL-10 levels before and after treatment. DAI 3 and 6 months after treatment was observed.

2.4. Statistical analysis

SPSS 20.0 software was used for the statistical analysis. The measurement data were expressed as mean \pm SD, and t test was used. χ^2 -square test was used for the enumeration data. $P<0.05$ was regarded as statistically significant.

3. Results

3.1. Comparison of the quantitative scoring of clinical efficacy and DAI before and after treatment between the two groups

The comparison of quantitative scoring of clinical efficacy and DAI before treatment between the two groups was not statistically significant ($P>0.05$). The above indicators after treatment in the observation group were significantly reduced ($P<0.05$) and the reduced degree was significantly greater than that in the control group ($P<0.05$) (Table 1).

3.2. Comparison of the colonoscopy examination results before and after treatment between the two groups

After treatment, in the observation group, 20 (47.6%) had complete remission, 18 (42.9%) had partial remission, 4 (9.5%) had no change, and the total effective rate was 90.5%. In the control group, 6 (15.0%) had complete remission, 20 (50.0%) had partial remission, 14 (35.0%) had no change, and the total effective rate was 65.0%. The total effective rate in the observation group was significantly higher than that in the control group ($P<0.05$).

3.3. Comparison of the serum IL-8 and IL-10 levels before and after treatment between the two groups

The comparison of the serum IL-8 and IL-10 levels before treatment between the two groups was not statistically significant ($P>0.05$). After treatment, IL-8 level was significantly reduced, and IL-10 level was significantly elevated when compared with before treatment ($P<0.05$). After treatment, IL-8 level after treatment in the observation group was significantly lower than that in the control group ($P<0.05$), while IL-10 level was significantly higher than that in the control group ($P<0.05$) (Table 2).

3.4. Comparison of the adverse reactions between the two groups

The comparison of the occurrence rate of adverse reactions during the treatment process between the two groups was not statistically significant ($P>0.05$) (Table 3).

4. Discussion

The intestinal mucosa and the submucosal tissues are mainly involved in the ulcerative colitis which is mainly treated by the traditional Chinese medicine, the microecologies in combined with mesalazine in the clinic, with a certain efficacy[8–10]. Sulfasalazine is commonly used for the treatment of mild and moderate ulcerative colitis, with a certain efficacy, but after entering the intestine, it can be decomposed into sulfapyridine and 5-aminosalicylic acid which can effectively act on the intestinal mucosa to inhibit the

Table 1

Comparison of the quantitative scoring of clinical efficacy and DAI before and after treatment between the two groups.

Groups	n	Efficacy evaluation		DAI		
		Before treatment	After treatment	Before treatment	3 months after treatment	6 months after treatment
Observation	42	9.75 \pm 1.64	1.32 \pm 1.34*#	7.5 \pm 1.6	1.6 \pm 1.4*#	1.5 \pm 1.6*#
Control	40	9.59 \pm 1.45	2.29 \pm 1.68*	7.3 \pm 1.8	6.6 \pm 1.3*#	6.8 \pm 1.5*#

* $P<0.05$, when compared with before treatment; # $P<0.05$, when compared with the control group.

Table 2

Comparison of the serum IL-8 and IL-10 levels before and after treatment between the two groups.

Groups	n	IL-8 (pg/mL)		IL-10 (ng/mL)	
		Before treatment	After treatment	Before treatment	After treatment
Observation	42	24.32±2.80	14.66±2.45 ^{*#}	43.45±5.58	56.70±7.36 ^{*#}
Control	40	24.65±2.86	18.21±2.64 [*]	44.70±5.82	49.53±6.63 [*]

*P<0.05, when compared with before treatment; #P<0.05, when compared with the control group.

Table 3

Comparison of the adverse reactions between the two groups.

Groups	n	Skin allergy	Abdominal distention	Poor appetite	Abnormal liver function	χ^2	P
Observation	42	4	6	4	8	0.683	0.877
Control	40	6	4	2	6		

synthesis of inflammatory cytokines, prostaglandin, and leukotriene to finally produce an anti-inflammatory effect; however, during the treatment process, adverse reactions will occur in partial patients due to sulfapyridine; therefore, application in the clinic has a certain limitation[11,12].

It is reported that[13] mesalazine in the treatment of ulcerative colitis has a significant therapeutic effect, can rapidly alleviate the clinical symptoms, and protect the colonic mucosal tissues. Mesalazine is applied in the treatment of ulcerative colitis in the clinic, containing two 5-aminosalicylic acid molecules which can release double 5-aminosalicylic acid molecules after azo chain breakage to effectively eliminate the inflammatory cytokines and free radicals, and protect the intestinal mucosa, with a significant therapeutic effect[14]. In the study, Etiasa in combined with mesalazine suppository in the treatment of mild and moderate ulcerative colitis for 4-6 weeks have improved the clinical symptoms and obtained colonoscopy remission rate, meanwhile their combination has not elevated the adverse reactions. Through the clinical application experience, mesalazine suppository can directly act on the lesions to directly inhibit the inflammatory cytokines in order to rapidly repair the damaged intestinal mucosa, finally achieving a preferable clinic effect. Some scholars argue that[15] ulcerative colitis is an autoimmune disease caused by the intermediate lymphocytes, with anti-inflammatory cytokine and pro-inflammatory cytokine imbalance as its main pathogenesis. IL-8 belonging to the pro-inflammatory cell, is mainly produced by the monocytes and macrophages, and is involved in the cell immune response. IL-10 belonging to the anti-inflammatory cell, is involved in the humoral immune response, is mainly produced by T cell, and can obviously inhibit the expression of pro-inflammatory cytokines[16]. The results in the study showed that after treatment, IL-8 level after treatment in the observation group was significantly lower than that in the control group ($P<0.05$), while IL-10 level was significantly higher than that in the control group ($P<0.05$), suggesting that Etiasa in combined with mesalazine suppository in the treatment of ulcerative colitis can significantly reduce IL-8 level, up regulate IL-10 level, can correct the imbalance of anti-inflammatory cytokines and proinflammatory cytokines, and promote the intestinal mucosal repair, with a significant efficacy.

In conclusion, Etiasa in combined with mesalazine suppository in the treatment of ulcerative colitis can increase the local drug concentration, correct the imbalance of anti-inflammatory cytokines and proinflammatory cytokines, promote the intestinal mucosal repair, and with a significant efficacy.

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