

Analysis of the Clinical Value of Baogan Lishui Decoction and Conventional Western Medicine in Treating Hepatitis B Cirrhosis Refractory Ascites

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Abstract: The objective of this study was to investigate the clinical effect of combination treatment of Chinese medicine Baogan Lishui decoction and western medicine on hepatitis B (Hep B) cirrhosis-related refractory ascites. The control group was given conventional western medicine therapy while the observation group was given same conventional western medicine therapy with additional of Chinese medicine Baogan Lishui decoction. The total effective of clinical treatment on Hep B cirrhosis-related refractory ascites in observation group was higher than that of the control group which was 88.89% compared to 71.11%, respectively, and it was significant different ($P < 0.05$). The combination treatment of Chinese medicine Baogan Lishui decoction and conventional western medicine can significantly increase the treatment effect on Hep B cirrhosis refractory ascites, and thus increases the quality and safety of life.

Keywords: hepatitis B cirrhosis refractory ascites; Baogan Lishui decoction; conventional western medicine; combination treatment effect

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0 Introduction

Hepatitis B (Hep B) is a common viral infectious disease that attacks liver and causes liver failure. Liver cirrhosis is the final stage of Hep B while the ascites is the symptom of Hep B cirrhosis patient at the final stage^[1]. Research study^[1] showed that single treatment of conventional western medicine on Hep B cirrhosis-related refractory ascites was not effectively cure the

disease, thus there were few scholars believed that combination treatments of Chinese medicine and conventional western medicine on patient can effectively cure the disease. In this study, there were 90 patients with Hep B cirrhosis refractory ascites. They admitted to our hospital from September 2015 to February 2018. They were enrolled as research subjects to determine the effectiveness of clinical combination treatment of Chinese medicine Baogan Lishui decoction (decoction for liver protection with diuretic effect) and conventional western medicine on Hep B cirrhosis refractory ascites. The findings will be taken as reference for effective clinical treatment on this disease in the future.

1 Clinical information and methodology

1.1 General information

Among 90 patients with Hep B cirrhosis refractory ascites, there were 49 males and 41 females patient's with age in the range of 42–81 years old (average age was 57.16 ± 2.16 years old), course of disease was 5 months–2 years (average course was 1.21 ± 0.14 years). These 90 patients were randomly divided into two groups which are observation group ($n = 45$) and control group ($n = 45$) according to the random digits table method, comparison of parameters above between the two groups is $P > 0.05$ (comparable).

1.2 Methods

1.2.1 Treatment

The control group was given conventional western medicines which were hydrochlorothiazide, furosemide,

spironolactone, inosine, and vitamins and also other therapeutic medicines were given to the control group according to the situation of each patient. Oral rehydration salts were given to the patients to maintain the body's fluid, electrolyte, and pH balance. Resting, exercise, and diet intervention of patients were guided scientifically.

The observation group was given conventional western medicine combine with Chinese medicine Baogan Lishui decoction. The composition of the decoction was Areca peel 12 g, Poria/China root 12 g, capillary wormwood 30 g, cinnamon vine/Chinese yam 6 g, Spine date seed 12 g, patchouli 10 g, rhizoma imperatae 15 g, *Lysimachia/creeping jenny* 15 g, *Polyporus umbellatus/lumpy bracket* 10 g, *Atractylodes macrocephala* 6 g, *Forsythia suspensa* 10 g, dwarf lilyturf 6 g, *Codonopsis pilosula* 10 g, dried tangerine peel 12 g, *Pinellia* 6 g, *Salvia miltiorrhiza/red sage* 12 g, trifoliolate orange 10 g, jiaosanxian 15 g, and chickens gizzard membrane 15 g. Patients from observation group were given one set the decoction every day, each set was boiled with water, then divided into two bowls and each was taken by the patients in the morning and evening, respectively. The duration of this treatment was 1 month.

1.2.2 Observation standards

According to the changes of clinical manifestations, imaging and laboratory test before and after treatment of patients with refractory ascites of Hep B cirrhosis and referring to the guidelines in "Guiding Principles for Clinical Research of New Drugs in Traditional Chinese Medicine,"^[2] the effectiveness of treatment was categorized into (1) markedly effective which indicated that the clinical symptoms were improved or disappeared, the ascites was significantly reduced or disappeared and volume of spleen decreased through ultrasound examination, laboratory test's results showed normal liver function and plasma protein; (2) effective indicated that the clinical symptoms were improving, ultrasound examination showed that the ascites was reduced compared to the volume before treatment, laboratory tests showed that the plasma protein and liver were recovering but not return to normal stage; and (3) no effective indicated that the clinical symptoms were getting serious instead of improved, ultrasound examination showed no reduced in ascites, but it was increasing and the laboratory tests showed that the plasma protein and liver function are getting worst.

The total effective of clinical treatment was calculated as the sum up of the value of markedly effective and effective from each group, respectively.

1.3 Statistical analysis

The data obtained from the two groups of patients with refractory ascites are presented as n (%) in each treatment group and analyzed for statistical significance using χ^2 test with the aid of the statistical software SPSS.19. A value of $P < 0.05$ was considered statistically significantly different.

2 Results

All selected patients with Hep B cirrhosis refractory ascites completed the treatment according to their respective group, and there was no stop without reason, no death, or no quit from the research. Analysis of the result showed that the total effectiveness of clinical treatment of observation group from the patients with Hep B cirrhosis refractory ascites was 88.89% and was higher than that of the control group which the total effectiveness of clinical treatment was only 71.11%, the data differences were $P < 0.05$ (significant different) as shown in Table 1.

3 Discussion

Research findings^[1] showed that liver cirrhosis ascites was the main clinical symptom of Hep B cirrhosis patients during decompensation of liver. Clinically, refractory ascites was defined when the amount of ascites increased continually for 3 months, inability to tolerate with sodium water, and the value of free water clearance in urine is <1 , the ratio of sodium to potassium is <1 , and the glomerular filtration rate is low.

Conventional western medicine was the one of the main clinical methods in treating Hep B cirrhosis refractory ascites; however, due to the difference body responses and acceptance of the medicine, some of the patients were not received satisfactory effect from the conventional western medicine. The clinical safety of treatment would be affected if the patients were continue to be treated by increasing the dose or extended the duration of treatment^[3]. In recent years, the incidence of Hep B remains high due to various factors, and thus the number of patients with Hep B cirrhosis refractory ascites is increasing. Therefore, to find out the effective treatment for the patients has become popular issue of the clinicians.

Table 1. Effectiveness of treatments on patients with Hep B cirrhosis refractory ascites in both groups *n* (%)

| Group | Markedly effective | Effective | No effect | Total effectiveness |
|------------------------------------|--------------------|------------|------------|---------------------|
| Observation group (<i>n</i> = 45) | 16 (35.56) | 24 (53.33) | 5 (11.11) | 40 (88.89)* |
| Control group (<i>n</i> = 45) | 11 (24.44) | 21 (46.67) | 13 (28.89) | 32 (71.11) |

**P*<0.05 compared with control group. Hep B: Hepatitis B

In China, traditional Chinese medicine believed that cirrhosis ascites is belonged to the category of “swelling.” The disease started when the patients’ liver, spleen, and kidney had damaged and caused circulation of the body fluid, gaseous, and blood in body blocked; subsequently, hepatic failure caused stagnation of body fluid in abdomen. Therefore, to cure the disease effectively, the treatment should be focus on the circulation of blood, liver protection, and promotes diuresis.

Research study^[4] showed that Baogan Lishui decoction consists of pure natural Chinese herbal medicine; combination of the herbs can promote diuresis, cleanses gallbladder, and regulate body heat and thus to protect the liver. By applying the combination of the Baogan Lishui decoction and the conventional western medicine, it can effectively cure Hep B cirrhosis refractory ascites through different ways and basically reduce the effect of individual differences on medication safety and thus guarantee the clinical treatment efficacy and prognosis.

The current study had proved that the observation group from Hep B cirrhosis refractory ascites patients which received conventional western medicine combined with Chinese medicine Baogan Lishui decoction had the higher total effective of clinical treatment (88.89%) than that of the control group which only treated with conventional western medicine (71.11%). This study

results were in accordance with the research finding of Zhiqiang and Yafang^[3].

4 Conclusion

The efficacy of treatment on Hep B cirrhosis refractory ascites can be increased significantly by applying the combination of Chinese medicine Baogan Lishui decoction and conventional western medicine; therefore, it benefits and guarantees the quality and safety of life of patients.

References

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