Progress and current status of Shendi Granules in the treatment of chronic nephritis

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Abstract: To review the research progress of Shendi Granule in the treatment of chronic nephritis. Through the retrieval of relevant literatures on the treatment of chronic nephritis in the past 10 years at home and abroad, from the perspective of Chinese medicine, the literature on the etiology and pathogenesis of the disease and the modern research such as pharmacology, mechanism of action and clinical are summarized. The ginseng granules are derived from the "Shengji General Record, Volume 13, Xingwumen", which may be related to regulating the body's immunity, reducing serum VEGF and urinary EGF, and maintaining T cell subsets. Many medical doctors have good clinical efficacy in the treatment of chronic nephritis with Shendi Granule. The study of Shendi Granule in the treatment of chronic nephritis should carry out research on its clinical efficacy evaluation and mechanism of action, which is worthy of clinical promotion.

Chronic glomerulonephritis, referred to as chronic nephritis, is a common kidney disease. The clinical manifestations of proteinuria, edema, hematuria, and hypertension are different. The onset of the disease varies, the disease progresses, and slowly progresses. The degree of renal dysfunction, and eventually the development of chronic renal failure, is a common and refractory chronic kidney disease. Modern medical treatment of this disease is not very satisfactory [1]. The authors have found that the use of Shendi Granules in the treatment of chronic nephritis can achieve good clinical results. Therefore, the research on Shendi Granules in the treatment of chronic nephritis in the past 10 years is summarized as follows.

1. Literature research

1.1 TCM pathogenesis

Chronic nephritis in the traditional medicine is "edema", "lean disease", "hematuria", "flaw" and other categories. The protein is metabolized by the spleen and stomach and is secreted by the kidneys. The pathogenesis of proteinuria is the virtual standard, which is true and false. This virtual refers to dysfunction of lung, spleen and kidney, and the factors such as external sensation, damp heat, blood stasis and emotional sensation. Insufficient lungs, invasion of foreign spirits, no waterway; kidneys are sealed, kidneys are sealed, and the spleen is cleared; spleen is clear, spleen is not raised, and fine bets; liver loss, emotion If you don't, then the spleen will not be cleared; or if the liver is lost, the kidney will be closed, and proteinuria can occur. The dwelling place is damp, raining and wading, the water is damp and hot, or the spleen can not be transported, forming damp heat, dampness and heat are trapped in the coke, causing turbidity, or disturbing the lower coke, sealing the dereliction of duty, to the subtle substance With the discharge of urine, it causes proteinuria. It takes a long time to enter the network, and the blood stagnates. The essence can't flow smoothly, and the sputum overflows, so that proteinuria can also appear in the subtle bleed [2].

1.2 TCM syndrome differentiation

TCM syndrome differentiation of chronic nephritis is caused by dampness and heat, which damages the spleen and kidney. Spleen deficiency is transported and incompetent, and kidney deficiency is unfavorable. Then the water is retained and edema is formed, and the urinary protein

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and tube type appear in the essence, and the heat is damaged. Symptoms see lumbar plague, chills, poor appetite, abdominal distension, oliguria, even no urine, generalized edema, Shenpi fatigue, palpitations, shortness of breath, pale face, white, Shaohua, pale tongue, thin white fur, slow and weak pulse . The cause should focus on damp heat, and the disease should focus on the spleen and kidney. The card is a false and complicated, and the specimen should be taken care of. [3]

2. Modern research

2.1 Modern Pharmacological Research

The ginseng granules are made according to the ginseng soup in the "Shengji General Record, Volume XIII, and the Virtual Door". Fangzhong ginseng is a medicinal herb, and it is a great remedy. "The ginseng is "insufficient in the five main organs, five labors and seven injuries, and the loss of thinness and weakness" "to make up the five internal organs and keep the spleen and kidneys", so the ginseng can replenish the spleen and kidney; the medicine is phlegm, rehmannia, spleen, and water It is especially suitable for those with edema. Rehmannia radix is used to replenish the kidney. For example, "The original experience of the original": "Fake firepower steaming, turning bitter for sweetness, for the yin of the yin, it can replenish the kidney.", two The combination of medicines plays the role of strengthening the spleen and kidney; Schisandra and mulberry are adjuvants, and the fixation is fine; The combination of various medicines serves as a spleen and kidney, and has a solid effect. Peng Hongxia et al [4] considered that the immunoinflammatory factor of chronic nephritis is the pathogenesis of nephritis, and oxidative stress-mediated activation of NF-kB signaling is the main mechanism of renal injury. Studies have shown that Shendi granules can reduce ROS and MDA, increase SOD, increase the antioxidant capacity of kidney cells, inhibit oxidative stress, reduce NF-kB signal activation, down-regulate MCP-1 expression, and inhibit glomerular sclerosis. . Moreover, Shendi Granule can reduce the amount of urine protein and red blood cells in patients and protect kidney function.

2.2 Modern clinical mechanism research

1) Elevation of MMP-9/TIMP-1 ratio Wang Yiping [5] Patients with chronic nephritis were randomly divided into treatment group (33 cases) and control group (31 cases). The treatment group was treated with Shendi granules (茯苓, 熟, Schisandra, mulberry Take the sputum, Chuanxiong), the control group was taken with benazepril tablets for 8 weeks; the total effective rate of clinical disease and the total effective rate of TCM syndromes in the treatment group were 87.88% and 90.91% better than 74.19% and 67.74 of the control group. % ($P < 0.05$). Studies have shown that the MMP-9 in the treatment group is higher than the control group, the TIMP-1 in the treatment group is lower than the control group, and the MMP-9/TIMP-1 is significantly higher than the control group, and the treatment group is more capable of degrading ECM than the control group. , delay ECM proliferation and glomerular sclerosis process.

2) Inhibition of NF-kB pathway activation Wang Yiping [6] Patients with chronic nephritis were randomly divided into treatment group of 22 cases and control group of 24 cases. The treatment group was treated with Shendi granules (茯苓, 熟, Schisandra, Mulberry, Chuanxiong). The patients in the control group were treated with benazepril for 12 weeks. Results The total effective rate of clinical disease and the total effective rate of TCM syndromes in the treatment group were 81.82% and 77.27% higher than that of the control group (66.67% and 37.50% ($P<0.05$).). Studies have shown that both the treatment group and the control group 24h urinary protein quantitation decreased, and the treatment group decreased more than the control group, while measuring the treatment group serum ROS, MDA levels and MCP-1 decline were better than the control group. It indicated that Shendi Granule could enhance the body's antioxidant capacity, down-regulate MCP-1 expression and inhibit the activation of NF-kB pathway.

3) Lower serum VEGF and urinary EGF levels Wang Yiping [7] Patients with chronic nephritis were randomly divided into treatment group (32 cases) and control group (32 cases). The treatment group received oral Shendi granules (茯苓, 熟, 紫子, 桑螵 sheath, Sichuan)穹), the control group

was given oral losartan potassium tablets for 8 weeks; the total effective rate of clinical disease and the total effective rate of TCM syndromes in the treatment group were both 86.67% better than 61.30% of the control group. The results showed that serum VEGF and urinary EGF levels were higher in patients with inflammation than in normal subjects. Both serum and urinary EGF levels were decreased in the treatment group and the control group, and the serum VEGF and urinary EGF levels in the treatment group were greater than those in the control group.

4) Elevated serum HGF, decreased TGF-β1, spear Yanping, etc. [8] Patients with chronic nephritis were randomly divided into treatment group and control group, 34 cases each. The treatment group took Shendi granules (茯苓, 熟, Schisandra, mulberry sheath) Treatment with Chuanxiong, the control group was treated with captopril tablets for 8 weeks; the total effective rate of clinical disease and the total effective rate of TCM syndromes in the treatment group were 84.85% and 87.88% ($P<0.05$). The group was 59.38% and 62.50%. The results showed that the erythrocyte count of urine in the treatment group was lower than that of the control group, HGF was higher than that of the control group, and the decrease of TGF-β1 was greater than that of the control group. It indicated that patients with chronic nephritis had lower serum HGF and higher levels of TGF-β1 than normal humans. Shendi granules promoted HGF secretion, inhibited TGF-β1 secretion, enhanced HGF inhibition of TGF-β1, and decreased urine protein and The red blood cell count level reduces the pathological damage effect of kidney tissue.

5) Correct the imbalance of T cell subsets and reduce the level of podocyte marker protein Wang Yiping [9] Patients with chronic nephritis were randomly divided into treatment group and control group, 30 cases each. The treatment group took Shendi granules (1 bag each time 10g) Oral administration of valsartan capsules (one time, 80 mg each time) for 12 weeks; results showed that the total effective rate of clinical disease and the total effective rate of TCM syndromes in the treatment group were better than the control. The group ($P<0.05$), and the whole blood CD8+T level, serum IL-2, IL-17 and urine PCX, B7-1 levels decreased compared with before treatment, the treatment group was better than the control group. Studies have shown that patients with chronic nephritis have elevated serum IL-2, IL-17 and decreased levels of IL-4, suggesting that patients have imbalances in Th1 and Th2 cell subsets, and Shendi granules can significantly improve CGN spleen and kidney deficiency syndrome. The patient's clinical symptoms, reduce 24h urine protein quantitation, correct the imbalance of T cell subsets, regulate serum IL-2, IL-4, IL-17 and urinary PCX, B7-1 levels, thereby inhibiting the damage of immune cells to podocytes , alleviate the deposition of immune complexes in the glomerulus, protect the podocytes, maintain the integrity of the glomerular capillary structure and filter barrier function.

6) Reduce proteinuria level Wang Dong et al [10] randomized patients with chronic nephritis into 37 patients in the control group and 38 patients in the treatment group. The two groups were given 50 mg of losartan potassium tablets on the basis of conventional Western medicine treatment (1 per day) Oral administration), the treatment group plus Shendi granules (1 bag 10g each time, 3 times a day orally), the course of treatment is 8 weeks; the total effective rate of clinical disease and the total effective rate of TCM syndromes in the treatment group are 92.10% and 94.74%, which was better than 72.97% and 67.57% of the control group ($P<0.05$ or $P<0.01$). UPro/24 h, MA/Cr, α1-MG, β2-MG, Scr and BUN were compared between the two groups. Reduced before treatment ($P<0.05$ or $P<0.01$). The results showed that 24 h urine protein quantitation (U-Pro/24 h), urinary albumin creatinine ratio (MA/Cr), α1-microglobulin (α1-MG), β2-microglobulin (β2-) in patients with chronic nephritis MG) and serum creatinine (Scr), urea nitrogen (BUN) levels, blood pressure were increased, Shendi granules can effectively reduce urinary protein in patients with CGN spleen and kidney qi deficiency, protect renal tubules, improve renal function.

3. Conclusion

In summary, Shendi Granule has a good clinical effect in the treatment of chronic nephritis, and its mechanism of action has also been partially verified. However, the literature review, the clinical study of Shendi Granules in the treatment of chronic nephritis lacks systematic and holistic, whether

the drug alone or in combination, the clinical efficacy evaluation has not been unified. It is urgent to establish a multi-center, large sample, randomized controlled prospective clinical study and unified clinical efficacy evaluation. At the same time, in future research, it should provide theoretical and practical basis for the promotion of clinical application.

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