Effect analysis of Shenkang injection on chronic renal insufficiency

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Abstract. To investigate the clinical effect of Shenkang injection on chronic renal insufficiency.
Methods 88 patients with chronic renal insufficiency were selected as the research object and randomly divided into observation group and control group. The control group was given routine treatment, and the observation group was given Shenkang injection on this basis. The total effective rate, hemoglobin level (Hb), red blood cell count (RBC), urea nitrogen (BUN), serum creatinine (SCr) and endogenous creatinine clearance (Ccr) were compared between the two groups. Results The total effective rate of the observation group (93.18%) was significantly higher than that of the control group (77.27%), and all observation indexes were significantly better than the control group, the difference was statistically significant (P<0.05). Conclusion Shenkang injection has a significant effect on chronic renal insufficiency patients, and can effectively improve the symptoms of weakness, anemia and so on.

Keywords: Shenkang injection; Chronic renal insufficiency; Clinical effect.

1. Introduction

Chronic renal insufficiency is the result of the development of various secondary and primary renal diseases, which, when developed to a certain extent, will cause chronic renal failure (chronic renal failure). Analysis of the pathogenesis of chronic renal insufficiency, the main reason is that the kidney is affected by various factors and appears chronic progressive renal parenchyma injury, and then causes kidney atrophy, and cannot play the basic function. Its clinical manifestations mainly include abnormal water/electrolyte, metabolic product retention, acid-base balance disorder, etc. Without effective treatment, it will involve all systems of the body and develop into clinical syndrome, namely uremia. At present, the focus of the treatment of chronic renal insufficiency is to delay the speed of kidney transplantation and delay the deterioration of renal function. In recent years, with the continuous improvement of medical level, great progress has been made in the treatment of chronic renal insufficiency. Among them, the combination of traditional Chinese and western medicine treatment has been widely recognized. Shenkang injection was given to patients with chronic renal insufficiency in our hospital on the basis of conventional treatment, and the effect was satisfactory. The report is as follows.

2. Data and methods

2.1 General Information

A total of 88 patients with chronic renal insufficiency admitted to our hospital from June 2019 to June 2020 were selected as the research objects. All patients met the diagnostic criteria of chronic renal insufficiency, and the reversible factors of acute exacerbation of chronic renal failure such as drugs, infection and stress were excluded. Randomly divided into observation group and control group, observation group 44 cases, 20 cases of female, 24 cases of male; The age ranged from 40 to 75 years, with an average age of 46.8 ± 11.1 years. Primary diseases: 11 cases of hypertensive nephropathy, 8 cases of diabetic nephropathy, 7 cases of multiple myeloma, 18 cases of chronic nephritis. The control group consisted of 44 patients, 19 females and 25 males. The age ranged from
39 to 77 years, with an average age of $47.2 \pm 10.8$ years. Primary diseases: 13 cases of hypertensive nephropathy, 9 cases of diabetic nephropathy, 6 cases of multiple myeloma, 16 cases of chronic nephritis. There were no significant differences in gender, age, primary disease and other general data between the two groups ($P>0.05$), indicating comparability.

2.2 methods
The control group was given routine treatment, including control of blood pressure, low-phosphorus diet, high-quality protein, correction of water and electrolyte, symptomatic treatment (vitamin supplement, use of erythropoietin, antihypertensive drugs, etc.), correction of acid-base balance disorder, etc. The observation group was additionally treated with Shenkang injection on the basis of conventional treatment, specifically: 80ml Shenkang injection was mixed with 250ml normal saline and 5% glucose liquid, and intravenous infusion was taken, once a day, for consecutive treatment for 14 days. The clinical effect and the changes of hemoglobin level (Hb), red blood cell count (RBC), urea nitrogen (BUN), serum creatinine (SCr) and endogenous creatinine clearance (Ccr) before and after treatment were compared between the two groups.

2.3 Efficacy evaluation
Significant effect: The patient's clinical symptoms disappeared or improved significantly, with SCr decreasing by more than 30%.
Effective: Patients showed improvement in clinical symptoms, with SCr decreasing by more than 20% but less than 30%.
Ineffective: Patients showed no improvement in clinical symptoms and no decrease or less than 20% in SCr.
Total response rate = (significant + effective)/total number ×100%.

2.4 Statistical Processing
SPSS13.0 software was used for statistical analysis of all data, where, for measurement data, $T$ test and $X^2$ test were used for counting data. $P<0.05$ indicated a significant difference, indicating statistical significance.

3. Results
3.1 Changes of various indicators before and after treatment

**Figure 1.** Comparison of changes in various observation indexes between the two groups before and after treatment

**expression $P<0.05$**
The changes of various indicators in the two groups before and after treatment are shown in Figure 1.2. It can be seen from the table that all indicators of the two groups changed after treatment, among which, indicators of the observation group were significantly different before and after treatment (P<0.05), showing statistical significance. In addition, there was no significant difference between the observation group and the control group before treatment (P>0.05), but after treatment, the improvement of the observation group was significantly better than the control group, and the difference between the two groups was significant (P<0.05), there was statistical significance.

### 3.2 Comparison of clinical effects

The comparison of clinical treatment effects between the two groups is shown in Figure 2. It can be seen from the table that the total effective rate of clinical treatment in the observation group was 93.18%, significantly higher than that in the control group (77.27%), and the difference between the two groups was significant (P<0.05), indicating statistical significance. In addition, no obvious adverse reactions were observed in the two groups.

**Figure 2. Comparison of clinical treatment effects between the two groups**

4. Discuss

The causes of chronic renal insufficiency are complex and varied, and the disease will further develop into uremia, which requires dialysis treatment. Patients can only be maintained through kidney transplantation or kidney replacement, which not only brings great pain to patients, but also costs a lot of treatment. At present, the focus of clinical treatment of chronic renal insufficiency is to delay the deterioration of renal function. At present clinical use of traditional Chinese and western medicine to treat chronic renal insufficiency, its therapeutic effect has been recognized by the majority of medical workers.

China's traditional Chinese medicine theory believes that kidney dysfunction is mainly caused by long-term kidney disease, resulting in the decline of viscera function. Therefore, in TCM treatment, it is advocated that the main treatment should be dispelling pathogenic factors, supplemented by activating blood circulation and fuzheng. Shenkang injection is a common Chinese medicine compound injection in the treatment of chronic renal insufficiency. The medicine was formulated by Ye Chuanhui, a famous expert in kidney disease research. Its main ingredients include salvia miltiorrhiza, astragalus membranaceous, rhubarb, safflower and so on. Among them, salvia miltiorrhiza can effectively inhibit the proliferation of renal fibroblasts and promote their apoptosis.
as soon as possible, which is beneficial to the body's metabolism and improves renal microcirculation, thus effectively improving the effect of renal interstitial fibrosis. Astragalus membranaceus is rich in protein, amino acids, inorganic ions, polysaccharides, etc., these components can reduce blood pressure, dilate blood vessels and other functions, is conducive to improve hematopoietic function, regulate the body's immune function, increase kidney blood flow, to a large extent, can inhibit kidney enlargement, slow down the urinary protein exclusion rate. Rhubarb can effectively improve the metabolic status of renal tubular cells, so as to play a role in inhibiting renal failure. But rhubarb is very powerful and can damage the body if used for a long time. Huangshi can effectively reduce the side effects of rhubarb because of its effect of warming and supplementing qi. Safflower can inhibit thrombosis, promote blood circulation and remove blood stasis. At the same time, it can also protect kidney function. Therefore, it can improve the clinical signs and symptoms of patients with chronic renal insufficiency without obvious side effects, and has a good renal protection function.

In this study, the observation group was treated with Shenkang injection on the basis of routine treatment (including blood pressure control, low-phosphorus diet, high-quality protein, correction of water and electrolyte, symptomatic treatment, correction of acid-base balance disorder, etc.). After treatment, hemoglobin level, RBC count, urea nitrogen, serum creatinine and endogenous creatinine clearance rate were significantly improved, and the differences were statistically significant compared with before treatment (P<0.05). After treatment, the improvement of indicators in the observation group was also significantly better than that in the control group, with statistical significance (P<0.05). In addition, the total effective rate of the observation group (93.18%) was significantly higher than that of the control group (77.27%), and the difference was statistically significant (P<0.05).

Therefore, Shenkang injection has significant clinical effect in the treatment of patients with chronic renal insufficiency, which can effectively improve the clinical signs and symptoms of patients, delay the disease and protect kidney function, which is worth promoting.

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