

Analysis of Rhubarb's Pharmacological Action and Clinical Application

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Abstract: Objective: To study the pharmacological effects and clinical application of rhubarb. Methods: 70 patients were selected as the experimental research objects, including various diseases, such as intestinal obstruction, acute pancreatitis, etc.. All of them met the experimental entry criteria, and the patients were divided into two groups, each with 35 cases. Compare the clinical efficacy, hospitalization time, and symptom relief time between the control group using conventional treatment and rhubarb treatment. Results: In the observation group treated with rhubarb, the number of patients with markedly effective, effective and ineffective treatment were 19, 14 and 2 respectively. In contrast, the control group using conventional therapy included 16 markedly effective, 13 effective and 6 ineffective. The effective rate of treatment in the observation group was significantly higher than that in the control group ($P < 0.05$). Secondly, clinical indicators such as hospitalization time and symptom relief time of patients in the observation group were also significantly better than those in the control group. And there was statistical significance among the data ($P < 0.05$). Conclusion: Antidiarrheal, antibacterial, antiviral, hemostasis, etc. are the main pharmacological effects of rhubarb, which can effectively alleviate the clinical symptoms of patients and improve the curative effect during its practical application.

1. Introduction

Rhubarb is a commonly used medicinal material in traditional Chinese medicine. It has the effects of reducing fire and heat, reducing swelling and removing blood stasis, and it is also safe. Under the background of the current era, the field of traditional Chinese medicine has developed rapidly, which has greatly promoted the progress in the field of medical and health. Many of these medicinal materials have been deeply applied, and rhubarb is one of them. At present, according to clinical researches, rhubarb has a wide range of pharmacological effects and can be applied to the treatment of many diseases. In this experiment, the pharmacological effects and clinical applications of rhubarb are focused on.

2. Materials and Methods

2.1 General Information

In the experiment, a total of 70 patients were selected as the research objects. After clinical

examination, they were diagnosed with nephropathy, acute pancreatitis, skin disease, and intestinal obstruction. The number of patients with the above diseases were 17, 11, 25, and 17 respectively. All study subjects were admitted to our hospital from April 2020 to March 2021. Except for their own illnesses, there are no other systemic diseases, organic diseases, etc., and their family members are informed and have signed the relevant consent forms. And after enrollment, the patients were randomly assigned to a control group and an observation group using different therapies, with 35 cases in each group. In the control group, the ratio of male to female was 21:14, and the age ranged from 26 to 84 years old, with an average age of (57.89±4.41) years old. The observation group included 19 male patients and 16 female patients, the youngest age was 31 years old, and the oldest age was 74 years old. Years old, with an average age of (54.47±3.96) years old. In comparison, the general data of the two groups of research subjects were not statistically significant (P>0.05).

2.2 Method

In the control group, conventional therapies were used, including anti-infection, nutritional support, etc., while paying close attention to and recording the patient's vital signs changes.

The observation group should add rhubarb therapy on the basis of conventional therapy. For example, patients with acute pancreatitis can be treated with somatostatin and rhubarb. For patients with intestinal obstruction, 40g rhubarb, 15g peach kernels, magnolia officinalis, citrus aurantium, 8g glauber's salt and 10g red peony should be selected for decoction, each time take 2 times. In addition, for patients with kidney disease, use rhubarb aconite irrigation decoction. For skin diseases, use rhubarb ginseng prescription.

2.3 Observation Indicators

The treatment efficiency, hospitalization time, symptom relief time and other indicators of the two groups were compared.

Treatment effective rate = apparent rate + effective rate. Significantly effective: the patient's symptoms disappeared after treatment. Effective: the patient's symptoms improved significantly after treatment, but there are still minor symptoms. Ineffective: the patient's symptoms are not improved if the patient's symptoms are not improved.

2.4 Statistical Processing

The statistical processing tool in the experiment process is SPSS20.0, using “±” standard deviation to indicate measurement data, % to indicate count data, respectively, using t and X² tests. If the difference between the data is large and statistically significant, it can be indicated It is (P<0.05).

3. Results

3.1 Efficacy Analysis

Table 1 Comparison of Treatment Efficiency (%)

Group	n	Significantly effective	effective	invalid	Total effective
Observation group	35	19	14	2	94.28%
Control group	35	16	13	6	82.85%
X ²					8.024
P					<0.05

The effective rate of treatment in the observation group was significantly higher than that in the

control group ($P < 0.05$).

3.2 Comparison of Clinical Indicators between the Two Groups of Patients

Table 2 Comparison of Clinical Indicators (d)

Group	n	Hospital stay	Time to symptom relief
Observation group	35	7.56±2.21	3.12±1.36
Control group	35	15.41±4.45	6.59±1.25
t		11.025	13.569
P		<0.05	<0.05

It can be seen from Table 2 that the hospitalization time and symptom relief time of the observation group treated with rhubarb were significantly better than those of the control group, and there was statistical significance between the two groups of data ($P < 0.05$).

4. Discussion

4.1 The Pharmacological Effects of Rhubarb

Rhubarb is one of the traditional Chinese medicine materials. In the actual application process, the anthraquinone derivatives are mainly used to exert its efficacy. Through thousands of years of application, rhubarb mainly has diarrhea, anti-infection, hemostasis, and choleric. ① Purgation: In the ancient Chinese medicine book “Shen Nong's Materia Medica”, there is an explanation about the effect of rhubarb's purgation, that is, “the medicine cleanses the intestines and stomach, promotes the old and promotes the new, and helps the water.” In modern medical research, after the anthraquinone derivatives of rhubarb reach the patient's stomach and are absorbed, they can stimulate the intestinal mucosa and inhibit the transport of sodium ions. Under the comprehensive action of rhubarb pharmaceutical ingredients, the large intestine will become It accelerates peristalsis and catharsis, and according to clinical evidence, the effect of this medicine does not have a major impact on the human intestine. However, its anthraside components may also cause secondary constipation, so its clinical application needs to be considered according to the actual situation of the patient. ② Anti-infection: Nowadays, many people suffer from various symptoms such as erysipelas, gum swelling and pain, mouth and tongue sores due to the actual heat and fire syndrome, which will seriously affect their quality of life. Rhubarb can be used in clinical treatment. The causes of the above symptoms in patients are related to bacterial infections. According to modern pharmaceutical research, it has been found that rhubarb has a strong inhibitory effect on many germs. After patients use rhubarb, it can hinder the synthesis of proteins and nucleic acids of the germs. To achieve the purpose of anti-infection. ③ Hemostasis: For some bleeding and vomiting caused by actual fire, rhubarb can be used, which can improve vasodilation, increase fibrinogen, and accelerate the synthesis of platelets, so as to achieve the purpose of hemostasis. At the same time, after using rhubarb to stop bleeding, it will not affect the patient's coagulation function. ④ Choleric: In addition to the above effects, rhubarb also has a good choleric effect, promotes gallbladder contraction, quickly discharges bile, and relieves jaundice caused by damp heat.

4.2 Clinical Application of Rhubarb

Rhubarb appears more frequently in traditional Chinese medicine prescriptions, and is generally related to digestive system diseases, such as common constipation, bleeding, and cholecystitis. For example, for intestinal obstruction, many patients may be caused by gastrointestinal damp heat, and

there will be different degrees of habitual constipation, acute and chronic constipation in the early stage. As the disease intensifies, it may cause intestinal obstruction. In clinical treatment, it can be use Zengye Chengqi Decoction, Peony Decoction, etc. For patients with acute pancreatitis, most of them are caused by liver and gallbladder damp heat, and the disease is clinically critical and will cause great harm to the patient's body in a short period of time. In traditional Chinese medicine, rhubarb can be combined with Yinchen, Combination of gardenia; if it is caused by real fire such as mouth and tongue sore, vomiting blood, etc., rhubarb and Xiexin Decoction can be combined to achieve the effect of rapid hemostasis.

In this controlled experiment, several research subjects were selected to explore the pharmacological effects and clinical applications of rhubarb. From the analysis of the experimental results, the observation group treated with rhubarb had a treatment efficiency of 94.28%. In contrast to the control group under conventional therapy, The effective rate was only 82.85%, which was significantly higher in the observation group ($P<0.05$). Moreover, as shown in Table 2, the hospitalization time and symptom relief time of the observation group were also significantly higher than those of the control group ($P<0.05$). In summary, rhubarb has many pharmacological effects, especially for diseases caused by real fire, and has extremely high safety. It is suitable to continue to strengthen the application of rhubarb in clinical practice and promote the development of the field of traditional Chinese medicine.

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