Analysis of Chinese Medicine in the Treatment of Rheumatoid Arthritis

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Abstract. Objective: to explore the prescription of Chinese patent medicine for the treatment of rheumatoid arthritis. Methods: the Chinese patent medicines for the treatment of rheumatoid arthritis in the 2015 edition of the Chinese Pharmacopoeia and the Ministry of Standards were collected, and the composition of the drug, the frequency of drug use, and precautions are analyzed. The rheumatoid joints are searched in conjunction with the Chinese website. The literature on Chinese patent medicines of inflammation is summarized in its clinical application status and characteristics. Results: among the proprietary Chinese medicines for treating rheumatoid arthritis, the top five traditional Chinese medicines with the highest frequency of use are Angelicae sinensis radix (28, 4.7%), Glycyrrhizae radix et rhizoma (27, 4.6%), Aconiti kusnezoffii radix (26, 4.4%), Aconiti radix (25, 4.2%), Cinnamomi ramulus (24, 4.1%). Conclusion: the composition of proprietary Chinese medicines for rheumatoid arthritis is mainly based on rheumatoid arthritis, tonic medicine, blood stasis and phlegm-removing drugs, and is consistent with the pathogenesis of rheumatoid arthritis considered by Chinese medicine.

1. Introduction

The peak incidence of rheumatoid arthritis is between 10 and 60 years old. The incidence of rheumatoid arthritis in China is 0.32% to 0.36%, and the ratio of male to female is 2:3.1 [1]. Rheumatoid arthritis is a common acute/chronic connective tissue inflammation in the clinic [2], Western medicine believes that its cause is related to the infection of human hemolytic streptococcus [3], which is an allergic disease. Although the name of Chinese medicine without rheumatoid arthritis is recorded [4], according to the patient's clinical symptoms, it is classified as "sputum syndrome", and it is considered that the human liver and kidney deficiency, lack of blood and blood, and external wind and cold invasion Caused by [5].

2. "Pharmacopoeia" and "Ministerial Standards" Included in the Treatment of Rheumatoid Arthritis

The 2015 edition of the Chinese Pharmacopoeia [6] contains 21 kinds of proprietary Chinese medicines for rheumatoid arthritis. In the "Ministry Standards", 65 kinds of proprietary Chinese medicines were included, and two kinds of duplicated medicines were excluded. The two were included in the treatment of rheumatoid arthritis. A total of 84 Chinese patent medicines for treating rheumatoid arthritis are included. The proprietary Chinese medicine for treating rheumatoid arthritis consists of at least one traditional Chinese medicine extract, and is composed of up to 56 traditional Chinese medicines. In this paper, the composition distribution of Chinese medicines in the treatment of rheumatoid arthritis, which is included in the Pharmacopoeia and the Ministry of Standards, is divided into seven sections, namely, 1 to 5 flavors, 24 species, 6 to 10 flavors, 23 species, 11 ~15 flavors of 16 species, 16 to 20 flavors of 7 flavors, 20 to 25 flavors of 3 species, 25 to 30 flavors of 2 species, >30 flavors of 5 species, see Figure 1. For the distribution of the dosage form of a proprietary Chinese medicine for treating rheumatoid arthritis, see Figure 2.
3. Statistical Analysis of Single Chinese Medicine

3.1 Analysis of Chinese Medicine Use

According to statistics, all Chinese patent medicines contain 235 kinds of traditional Chinese medicines, with a cumulative frequency of 899 times. Among the 235 kinds of traditional Chinese medicines, there are 57 kinds of traditional Chinese medicines with frequency $\geq$5, and the cumulative frequency of use is 589 times. The top 5 flavors with the highest frequency of use are Angelicae sinensis radix (28, 4.7%), Glycyrrhizae radix et rhizoma (27, 4.6%), Aconiti kusnezoffii radix (26, 4.4%), Aconiti radix (25, 4.2%), Cinnamomi ramulus (24, 4.1%).

3.2 Classification of Chinese Medicine Efficacy

57 Chinese traditional medicines with a frequency of $\geq$5 in 235 Chinese herbal medicines are classified according to "Chinese Pharmacy". According to statistics, 57 traditional Chinese medicines cover 14 kinds of efficacy classifications, with a cumulative frequency of 589 times. Among the 14 kinds of efficacy, the first four categories with higher frequency were rheumatoid (166 times, 28.18%), tonic (119 times, 20.20%), and blood stasis (111 times, 18.85%). Table medicine (87 times, 14.77%). See Table 1 for details.

3.3 Statistical Analysis of Toxicity of Traditional Chinese Medicine

For the long-term treatment of chronic rheumatoid arthritis, the drug must be strictly targeted to its indications, dosage, course of treatment, usage and contraindications. It is not possible to blindly increase the efficacy of the drug by increasing the metering, prolonging the course of treatment and changing the usage, so as not to cause some Ingredients (such as Strychni semen, Aconiti lateralis radix praeparala, etc.) cause toxic reactions in the body to cause adverse reactions [7]. For substances that are both toxic and active ingredients, such as (Strychni semen, Aconiti radix) control component range, ratio between components, reduce toxicity to ensure the best efficacy; The composition of a proprietary Chinese medicine for treating rheumatoid arthritis contains toxic Chinese medicine. Aconiti kusnezoffii radix, Great poison; Aconiti radix, Great poison; Aconm lateralis radix praeparala, poisonous; strychni semen, Great poison; Scorpio, poisonous; Arisaematis rhizoma, poisonous; Paridis rhizoma, Small poison.
Table 1. Classification and Classification of 49 Traditional Chinese Medicines with Frequency ≥5.

| Efficacy classification | Frequency | Efficacy classification | Frequency |
|-------------------------|-----------|-------------------------|-----------|
| Rheumatism              | 166       | Recipe                  | 11        |
| Tonic                   | 119       | Hemostatic drug         | 8         |
| Blood stasis            | 111       | Humidifying agent       | 7         |
| Solution                | 87        | Qi medicine             | 6         |
| Water hygroscopic drug  | 19        | Resolving phlegm and relieving cough and asthma | 5 |
| Wenli medicine          | 19        | Heat medicine           | 5         |
| Pinggan Xifeng          | 16        | Attacking insecticides and antipruritic drugs | 5 |

4. Precautions for the Use of Proprietary Chinese Medicines

There are 55 kinds of proprietary Chinese medicines for treating rheumatoid arthritis in the 2015 edition of the Chinese Pharmacopoeia and the Ministry of Standards, which are clearly marked as follows: There are 43 kinds of notice of Chinese patent medicine related to pregnant women, and 31 kinds of Chinese patent medicine should be avoided and taken carefully by pregnant women. There are 12 kinds of pregnant women who are forbidden to take medicine. There are 7 kinds of foods that should be taken care of during the medication (avoid cold, greasy, seafood food), and other diseases may be used with caution or There are 22 kinds of banned (hypertension, heart disease, renal insufficiency, liver and kidney disease, gastric ulcer, open tuberculosis, yin deficiency), and there are 5 kinds of cold and ban, special population (old, weak, young), There are 12 kinds of athletes who are cautious or forbidden. In this article, as far as possible, the cross-over phenomenon occurs when the classification of Chinese patent medicines is classified, so the number of species will be more than 55. See Figure 3 for details.

Figure 3. Notes on Proprietary Chinese Medicine for Rheumatoid Arthritis.

5. Discussion

At present, the treatment of rheumatoid arthritis can be regulated by acupuncture and moxibustion for the body to help the yang, so that the body is yin and yin, effectively improving the patient's original functional state [8]. The use of acupuncture and cupping therapy with stimulation and negative pressure causes the capillaries in the body to rupture blood stasis, thereby activating
stem cell repair function, arousing the absorption function of necrotic blood cells, accelerating blood circulation, inducing menstruation, thereby regulating blood and improving human immunity. It can effectively improve the original functional state of patients [9]. Non-steroidal anti-inflammatory drugs, cytotoxic drugs and immunopharmaceuticals are common therapeutic drugs, which improve the clinical symptoms of patients to a certain extent, but the long-term treatment effect is not good, and the side effects are large and the recurrence rate is high [10]. Clinical studies have found that Fengshi Gutongling has obvious clinical effects in treating rheumatoid arthritis, rapidly improving adverse signs, eliminating joint swelling and pain, promoting joint recovery and flexibility, preventing joint deformity, and no stopping after stopping the drug. Rebound phenomenon [11], Shujin Huoxuotongtong cream has obvious clinical effects in treating rheumatoid knee arthritis [12]; Rheumatism and pain relief can effectively alleviate the pain of patients, but it takes a long time to take the medicine before it can be completely cured [13]; Zhengqing Fengtongning injection directly acts on the lesion, which can quickly reduce swelling and relieve pain, and reduce the gastrointestinal adverse reactions of western medicine [14]; Local acupuncture, cupping diagnosis, and external application of traditional Chinese medicine can reduce the symptoms of rheumatism for a long time.

A review of the Chinese literature found that Western medicine in the treatment of rheumatoid arthritis can only temporarily relieve pain and eliminate inflammation, but it is repetitive and produces a series of adverse reactions. The treatment of proprietary Chinese medicine has achieved certain curative effect. The pathogenesis of rheumatoid arthritis is unclear. Therefore, it is necessary to further explore the mechanism of action of Chinese patent medicine in the treatment of rheumatoid arthritis. The number of proprietary Chinese medicines for treating rheumatoid arthritis is relatively large, but the research is less. In the statistical drug composition, it was found that rheumatoid medicine, tonic medicine, solution medicine, blood stasis and phlegm medicine are more, which is consistent with the pathogenesis of rheumatoid arthritis explained by Chinese medicine.

Chinese medicine treatment of rheumatoid arthritis can reduce adverse reactions. Long-term use has the possibility of recovery, reducing repeatability. However, the composition of traditional Chinese medicine is complicated and the mechanism of action is unknown. Therefore, the mechanism of action of traditional Chinese medicine in the treatment of rheumatoid arthritis should be explored in depth. The combination of Chinese and Western medicine can better alleviate the pain of patients and treat both the symptoms and the root causes.

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