Clinical Study on 320 Cases of Senile Osteoarthritis Treated by Traditional Chinese Medicine Orthopedics based on Big Data Analysis

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Abstract. Objective: To analyze the clinical efficacy of traditional Chinese medicine orthopedic rehabilitation in the treatment of senile osteoarthritis based on the analysis of big data. Methods: 640 elderly patients with osteoarthritis were randomly divided into control group and observation group. The patients in the control group were treated with celecoxib capsules. The patients with neonates were treated with traditional Chinese medicine orthopedic rehabilitation. The clinical efficacy of the two groups was compared. The pain and functional recovery were evaluated by VAS and JOY scores. RESULTS: There was no significant difference in VAS and JOY scores between the two groups (P>0.05). The VAS and JOY scores of the New Zealand patients were significantly better than those of the control group (P<0.05). The total effective rate of patients with neonatal observation was 93.3%, which was better than that of the control group (70.0%). The difference was statistically significant (P<0.05). Conclusion: The effect of traditional Chinese medicine orthopedic rehabilitation on senile osteoarthritis is better than that of celecoxib alone. It is worthy of clinical application.

Keywords: Osteoarthritis, Traditional Chinese Medicine Orthopedic Rehabilitation, Moxibustion, Massage, Chinese Medicine Fumigation, Big Data

1. Introduction

Osteoarthritis is one of the more common forms of chronic joint disease in the elderly. The main clinical symptoms are joint stiffness, pain and dysfunction [1-3]. Studies have shown that knee joints have the highest incidence. The main pathology of osteoarthritis is abnormal bone hyperplasia around the joint and degenerative lesions of articular cartilage. In the past, Western medicine was often used, but the ideal effect was not achieved, and adverse reactions occurred after prolonged use [4-5]. Osteoarthritis is one of the most common chronic joint diseases in the elderly. The main symptoms of the patients are joint pain, stiffness and dysfunction. Osteoarthritis is an orthopaedic disease with a high incidence in the elderly. The main clinical symptoms include joint pain and limited mobility. The pathological features are degenerative lesions of articular cartilage and bone hyperplasia around the joint. The current treatment of the disease is Develop a plan based on the actual situation of the patient.
Our hospital has obtained better curative effect through 320 cases of senile osteoarthritis patients treated by traditional Chinese medicine orthopedics rehabilitation. It is reported as follows.

2. Information and methods

(1) Clinical data

From January 2015 to January 2016, 640 patients with senile osteoarthritis were enrolled in our hospital as clinical subjects, and were randomly divided into control group and observation group. There were 205 males and 115 females in the control group; the age ranged from 55.5 to 83 years, with an average of (62.5±7.3) years; the course of disease was 0.7-9.4 years, with an average of (1.6±0.5) years. There were 185 males and 135 females in the observation group; the age ranged from 56 to 82.5 years, mean (61.6±7.2 years); the course of disease was 0.8-9.5 years, with an average of (1.5±0.6) years. There was no significant difference in the general data between the two groups (P>0.05), which was comparable.

(2) Diagnostic criteria

The diagnostic criteria refer to the diagnostic criteria for the fourth edition of Practical Osteoscience: 1 knee pain repeated pain for 1 month; 2 knee joint activity with friction sound; 3 knee joint morning stiffness <30min; 4 patients (>40 years old); 5 knee joint hypertrophy with bone hyperplasia. The patient has 1 symptom and is diagnosed with knee osteoarthritis at the same time as 234 or 235 or the remaining criteria.

(3) Inclusion criteria

1 meet the diagnostic criteria of knee osteoarthritis; 2 age is 60 to 70 years old; 3 symptoms are mainly knees; 4 no obvious other complications.

(4) Exclusion criteria

1 obvious internal and external valgus; 2 persistent knee flexure; 3X line shows joint instability; 4X line shows patients with multiple lesions such as lumbar or medullary joint; 5 combined with rheumatoid and rheumatoid arthritis; @ merge Gastro intestinal disease patients with ulceration or bleeding disorders; 7 allergic to the drug used in this study and can not be treated according to the regulations.

(5) Method

The patients in the control group were treated with celecoxib capsules (Pfizer, Chinese medicine word J20120063), 1 tablet per day. The patients in the observation group were treated with traditional Chinese medicine orthopedics rehabilitation, including moxa moxibustion, massage, and traditional Chinese medicine decoction. The moxibustion method: the patient stayed in the supine position, and the sick knee was placed on the moxa box. 3.5cm at the inner and outer knees and Liangqiu, etc., the moxibustion moxibustion is smoked for 30min; the traditional Chinese medicine decoction is smoked and washed: 30g of stalk, achyranthes, frankincense, and clematis 20g, raw grass, raw 10g of Chuanwu, soak the above drugs in 3000mL of water, start boiling after 15min, and then fumigate the affected area after 15min of boiling. The liquid should be partially soaked for 15min after the temperature is suitable; massage: press Learning sea, committee, internal and external knee, Liangqiu and other positions, flexion knee joint at 90. The knee joint was stretched and stretched, the joint was enlarged for the patient, and the knee joint was lifted with fingertips to increase the mobility of the tibia. The above method was performed once a day for 1 week as a course of treatment.

(6) Efficacy evaluation

Significant effect: clinical symptoms disappeared, joint function gradually returned to normal, patients can live normally: effective: clinical symptoms and signs have improved, joints can be slightly active, daily life is limited; invalid: clinical signs and signs are better signs, daily activities are difficult. Significant and effective counts are always valid.

The degree of pain and functional recovery was evaluated using the VAS and JOY scores.

(7) Statistical methods

The SPSS 13.0 statistical software was used for data analysis and processing. The measurement data was represented by (x±s), the t-test was used to compare the measurement data between groups, and the x2 test was used for the count data. P < 0.05 was considered statistically significant.
3. Results

(1) Comparison of VAS and JOY scores before and after treatment in two groups of patients

The difference of VAS and JOY scores between the two groups was statistically significant (P>0.05). The VAS and JOY scores of the observation group were better than those of the control group (P<0.05). See Table 1 for details.

| Group          | time          | VAS score (x ± s) | JOY rating (x ± s) |
|----------------|---------------|-------------------|--------------------|
| Control group  | Before treatment | 7.3±1.5          | 49.7±10.6          |
|                | After treatment | 5.9±1.2           | 56.7±13.8          |
| Observation group | Before treatment | 7.2±1.6          | 50.2±11.2          |
|                | After treatment | 4.2±0.88         | 72.4±14.2          |

(2) Comparison of clinical effects between the two groups of patients

After treatment, the total effective rate of the observation group was 93.3%. Compared with the control group, 70.0%. The difference was statistically significant (P<0.05). See Table 2 for details.

| Group          | Number of cases | Significant effect | Effective | Invalid | Total efficiency (%) |
|----------------|-----------------|--------------------|-----------|---------|----------------------|
| Control group  | 320             | 128                | 96        | 96      | 70.0                 |
| Observation group | 320              | 203                | 96        | 21      | 93.3                 |

4. Discussion

Osteoarthritis is called osteoarthrosis or joint degenerative disease, and is a joint disease with a high incidence in the middle-aged and elderly population. According to relevant reports, the incidence rate of over 50 years old accounts for 13.6% of the total affected population. At this stage, the incidence is related to the decline of the body, endocrine imbalance and abnormal joint metabolism. Treatment of common surgical treatment, rehabilitation, medical treatment, medical treatment commonly used non-simplified anti-inflammatory drugs.

Osteoarthritis belongs to the category of "bone sputum" in traditional Chinese medicine. It is characterized by joint pain, stiffness, swelling and inconvenient movement. "Su Wen" is described as "caused by the combination of wind, cold and dampness, causing blood and blood to stay, so formed. "Bone sputum", as well as "the disease is in the bone, the bone is heavy, the bone marrow is sore, the cold is chilly, the name is the bone", so the focus of the clinical treatment plan is to remove the evil spirits and moisture in the body and supplement the kidney qi and blood. This study adopted three treatment methods, namely, moxibustion, massage, and traditional Chinese medicine decoction. Moxibustion is a combination of related techniques in specific acupuncture points. It can clear the blood and meridians, supplement the liver and kidney vitality, help reduce the pain of patients and improve joint function. Massage combined with multiple techniques can dredge meridians and blood. It can relieve symptoms such as phlegm and loosening adhesions; traditional Chinese medicine decoction can enhance the therapeutic effect of ions, increase the absorption rate of inflammatory substances, and repair articular cartilage.

In summary, the efficacy of traditional Chinese medicine orthopedic rehabilitation in the treatment of senile osteoarthritis is better than that of single-use lycopene, which is worthy of clinical application.

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