non-drug therapy of traditional Chinese medicine treatment of knee osteoarthritis

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ARTICLE INFO

Article history:
Received
Received in revised form
Accepted
Available online

Keywords:
Knee osteoarthritis
Traditional Chinese medicine external treatment
Review

ABSTRACT

To review combining manipulation in recent years and the progress of moxibustion treatment of knee osteoarthritis, to evaluate the research progress of Chinese medicine external treatment knee osteoarthritis. Collect and analyze non-drug therapy of traditional Chinese medicine for the treatment of knee osteoarthritis of data in recent years. Chinese medicine external treatment can significantly improve the stability of the knee joint, patients walking ability, and quality of life of patients. Chinese medicine non-drug therapy can be used as ideal scheme for the treatment of knee osteoarthritis.

1. Introduction

Knee osteoarthritis (KOA), characterized by degeneration of articular cartilage, damage and bone hyperplasia, is a kind of refractory, progressive and chronic joint lesion. Along with the social population aging degree deepening, there is an upward trend in the incidence of the KOA. In recent years, Chinese medicine external treatment is widely used in the field of treatment of knee osteoarthritis. In this paper, as follows, we summarize the relevant research progress of the commonly used therapy of traditional Chinese medicine.

2. Massage therapy

2.1. Manipulation

Manipulation, rises the function of warming channel for dispelling cold, powder for activating meridians to stop pain, can improve the metabolism of skeletal muscle cells to some extent, improve the ductility of skeletal muscle and improve joint mobility at the same time, and then improve joint function.

A number of 96 patients with knee osteoarthritis were randomly divided into treatment group and control group by Fan et al[1], 48 cases in each. For the treatment group, we use rolling and rotating manipulation treatment, for the control group with western medicine celecoxib, with whole course of treatment for 30 days. According to the results, the treatment group clinical curative effect was equal to that of control group with the effective rate 93.75% (P>0.05), while the contraction of muscle fiber strength was improved than that in control group (P<0.05).

Liu et al[2] took 140 patients with degenerative knee osteoarthritis, randomly divided them into treatment group and control group, 70 cases in each. Control group was to the celecoxib oral, and the treatment group was to manipulation release and movement therapy, etc. with the two groups of a course of 3 weeks. According to the results, the treatment group clinical curative effect was equal to that of control group with the effective rate 93.75% (P>0.05), while the contraction of muscle fiber strength was improved than that in control group (P<0.05).

Guo et al[3] took 96 elderly patients with knee osteoarthritis, randomly divided them into treatment group and control group, 48 cases in each. The control group used the knee joint treated with a
adjustable external fixation method, the treatment group, on the basis of the control group, used the manipulation treatment, two groups of treatment for 4 weeks. The research results showed that osteoarthritis index score was associated with treatment time of two groups of patients, with the statistically significant difference in the time points ($P<0.05$). In addition, for the treatment group and control group patients, the osteoarthritis index difference between each index score at various time points were statistically significant ($P<0.05$). Thus, compared with pure use of knee joint treated with external fixation with adjustable elderly knee osteoarthritis, massage combined with external fixation of the knee joint adjustable support therapy could more effectively relieve the pain in the process.

2.2. Tendon–regulating method

Tendon–regulating method can increase the quadriceps muscle force, improve the stability of the knee joint, improve the patient's quality of life.

Liu et al[4] took 80 patients with knee osteoarthritis, randomly divided them into control group and treatment group, 40 cases in each. For the control group, we treated patients with functional exercise, for the treatment group, basing on the control group, treated combining with tendon–regulating method for a course, then compared two groups of patients with knee joint function. The research results show that two groups of knee joint function score was improved obviously after treatment, in addition, the observation group increased more obviously than the control group, differences between groups and the difference between before and after treatment were statistically significant ($P<0.01$). Thus, comparing with functional exercise treatment of knee osteoarthritis, tendon–regulating method with functional exercise can significantly improve the function of patients with knee joint, with the advantage of sample operation, no obvious contraindication, can be promoted in clinical treatment.

Lian et al[5] applied 3D infrared gait analysis equipment, analyzed the 34 patients with knee osteoarthritis in reinforcement technique and functional training balance and walking efficiency changes before and after the intervention, treatment of 4 weeks. Results show that the reinforcement technique and functional training of patients were improved obviously after treatment with equal step length, step velocity and double support index, and the differences of curative effect of pure reason reinforcement technique group are significant ($P<0.05$). Thus, the combination of passive and active rehabilitation can obviously improve the patients with knee osteoarthritis of lower limb motor function and the stability of the knee joint, further improve the walking ability in patients with knee osteoarthritis and improve the quality of life of patients.

3. Acupuncture

3.1. Stitch

Acupuncture can hasten the knee joint local blood circulation, improve tissue metabolism, improve local blood stasis symptoms, and promote local inflammation absorption, so as to achieve the purpose of improving joint function.

Qiu et al[6] took 88 patients with knee osteoarthritis, randomly divided them into warm acupuncture group and acupuncture group, each group of 44 cases. Warm acupuncture group by warm acupuncture method, hole inside knee eye, Dubi, cooperated with rehabilitation treatment; With warm needle acupuncture group and rehabilitation training group, acupuncture moxibustion is not applied, therapy treatment for 2 months. Results showed warm acupuncture group total effective rate was 100%, the acupuncture group was 85.4%, two groups of symptoms integral, pain and knee function score were improved significantly after treating 20 times.

Shi et al[7] took 120 early metaphase knee osteoarthritis patients, randomly divided them into treatment group and control group, 60 cases in each group. Treatment group was treated with swollen thorns, short spines with functional training, the control group using conventional acupuncture treatment, treatment after two courses of discovery: comparing with before, the two groups after treatment symptoms signs of integral and VAS score, the difference was statistical significant ($P<0.01$).

3.2. Moxibustion therapy

Moxibustion can dredge meridians and cou justified affected part, make the blood flow, blood stasis diffuses, improve the blood supply of the knee joint bone, and enhance the capacity of cancellous bone part own hematopoietic, fundamentally treat variation of bone, so as to achieve the purpose of treating and preventing diseases.

Dong et al[8] selected 76 patients with knee osteoarthritis, randomly divided them into treatment group and control group, each group of 38 cases. Treatment group used acupuncture point treatment, control group treated with traditional acupuncture point group, the treatment course of 4 weeks. Research results showed that the differences in the evaluation of life before and after treatment in patients with pain score were significant ($P<0.05$), which shows that moxibustion can promote absorbing or removing of inflammatory substances, relieve knee osteoarthritis clinical symptoms such as pain and dysfunction.

Chang et al[9] selected 134 patients with knee osteoarthritis, randomly divided them into treatment group (74 cases) and control group (60 cases), control group with ultrashort wave therapy, the treatment group basing on the control group was given thunder fire moxibustion treatment, treating for 2 weeks. The results showed that the treatment group total effectiveness was 93.24%; control group total effectiveness was 78.34%, proving the thunder fire moxibustion combined with ultrashort wave therapy knee osteoarthritis curative effect being remarkable.
3.3. Auricular-seed-buried therapy

Auricular-seed-buried therapy, through proper massage with medicine beans on the ear, to produce disease, hemp, bilge, pain stimulation, increases the pain threshold and the ward of tiny blood vessels, improves blood circulation, and causes pain to transport material and resolve, for the purpose of regulating viscera, treating diseases.

Cheng et al.\(^\text{(10)}\) selected 89 patients with knee osteoarthritis, randomly divided them into auricular application add spirit fairy medicine cake moxibustion therapy (30 cases), electric acupuncture group (29 cases) and TDP irradiation group (30 cases). Three groups all treated 1 times a day, 10 to 1 treatment course each, treatment course stop interference between 1 week, circulating 3 period of treatment. Results showed that each group compared with before in patients with symptoms signs integral all have statistical significance, in addition, the system electric acupuncture plus moxibustion group in improving symptoms and signs, pain score, the cure rate, and the total curative effect is better than the other two groups. Proving the points acusector joint adding spirit fairy cake moxibustion medicine analgesia had advantage in anti-inflammatory and adjust the biological balance and mechanical balance of lesions in the knee joint, improve symptoms, improve the cure rate in patients.

4. Chinese herbal fumigation

Chinese herbal fumigation directly effects on inflammatory synovial hyperplasia of the joint surface, promoting the local blood circulation of diseased tissue, relieve muscle spasm and increase in inflammatory reaction transmitter in absorption, thereby alleviating pain, smooth the arthrosis through the efficacy and thermal effect under the condition of the blood capillary expansion.

Wang et al.\(^\text{(11)}\) selected 200 patients with knee osteoarthritis, randomly divided them into treatment and control group, 100 cases in each group. Control group adopts pure gimmick massage treatment, on the basis of control group, treatment group with traditional Chinese medicine (rhizoma ligustici wallichii, frankincense, radix clematidis, twotooth achyranthes root, one thousand health, salvia miltiorrhiza, tougucao, windproof, kusnezoff monkshood and asarum) fumigation treatment. The research results showed that the treatment group total effective rate was 94%, control group was 85%, the treatment group curative effect is significantly better than that of control group (\(P<0.05\)). Results indicated that Chinese medicine fumigation treatment knee joint osseous arthritis curative effect is distinct.

Zhang et al.\(^\text{(12)}\) selected 60 patients with knee osteoarthritis, randomly divided them into observation group and control group, 30 cases in each group. Control group was given sodium hyaluronate injection in the knee joint, observation group based on this given living traditional Chinese medicine fumigation of parasitic soup in the morning and 1, 2 period of treatment to observe curative effect. Results found that the observation group and control group cure rate were (36.67% vs 20.00%), difference between them was statistically significant (\(P<0.05\)), in addition, the knee function score before and after treatment, differences between groups were statistically significant (\(P<0.05\)). Thus proving that Chinese medicine fumigation joint intra-articular injection of sodium hyaluronate treat knee osteoarthritis can significantly improve the function of the knee joint.

5. Traditional method

5.1. Eight-sectioned exercise

Eight-sectioned exercise is a traditional health achievement method, with a whole set of action flexible and continuous lubricating fluid; pine tight, dynamic and static-safe; breath is fluent, bone is reinforced soft, invigorating the circulation of t2dm, harmonic Yin and Yang, strengthen the body's vital flavour; in turn, promote body blood circulation, improve the symptoms of a variety of chronic diseases.

Kong et al.\(^\text{(13)}\) selected 100 patients with joint by using eight segments JinGong fitness exercise, after 1 year training, joint disease in the biochemical indicators and clinical indications before the exercise were improved significantly (\(P<0.05\)), the results show that eight-sectioned exercise can drive through systemic skeletal muscle movement, make corresponding get regular pull blocked nerve, muscle, thus realize edema subsided and relieve muscle spasm, so as to achieve treatment strain caused by cervical and lumbar spine of the knee joint disease.

5.3. Yi jin jing

Yi jin jing, as one of our four traditional great fitness, can strengthen body and make body tissues softly, including tendons, muscles and fascia, blood vessels.

Li et al.\(^\text{(14)}\) selected 60 cases of patients with knee osteoarthritis, treated them with massage and exercise yi jin jing, a month after treatment, patients general symptoms, pain, stiffness and daily activity function score was significantly decreased. The research showed massage can exercise consciously connected with yi jin jing systemic brawn and viscera of major joints of the triple energizer fascia, promoting circulation of flatus and blood, thus enhance physical strength and improve the human organs physiological function.

6. Summary

Throughout in recent years, during the research progress of Chinese medicine external treatment knee osteoarthritis, we found the
Traditional Chinese medicine external treatment in knee osteoarthritis can improve the stability of the knee joint, relieve joint pain and stiffness, in addition, Chinese medicine external treatment had significant curative effect in improving the whole body soft tissue, invigorating the circulation of t2dm, and improving the quality of life of patients. Finally, external treatment of traditional Chinese medicine not only works fast, but convenient and safe, economical and practical, can be used as an ideal solution for promoting the treatment of knee osteoarthritis.

Reference


