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# Treatment of Knee Osteoarthritis with Fire Needle Acupuncture and Fire Cupping

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## Abstract

*Aim - The aim of this work is to present the results of the researched group of patients treated with fire needles and fire cupping in knee osteoarthritis and to explain the methods of the treatment.*

*Methods - Treatments were done in a clinic for TCM and acupuncture in Skopje by a doctor specialist in acupuncture, indoor on a room temperature with duration of 20-30 minutes. In all patients was applied acupuncture treatment with fire needles on certain trigger points - Ashi, with duration of 10-15 minutes and fire cupping with duration of 5-10 minutes at the same points. One specific point which is located on the inside side of the knee was treated in all patients. The research includes 32 patients, of which 21 women and 11 men, on age from 33 to 78.*

*Results - All painful symptoms that patients complained before were gone (pain in the knee, edema, limited motion, numbness, loss of balance, insomnia), therefore the treatments have been effective in all patients.*

*Conclusion - Combined treatment of fire needle acupuncture with fire cupping is one of the most commonly used in knee osteoarthritis and thus gives most satisfactory results in the treated patients so far.*

*Key words: knee, osteoarthritis, fire, acupuncture; cupping; traditional Chinese medicine*

## Introduction

Osteoarthritis has been treated with Traditional Chinese Medicine for hundreds of years. Osteoarthritis is a chronic degenerative disease that affects the joints by changing their structure causing pain, swelling, stiffness, tenderness and reduced physical function. The most affected joint is the knee and mostly affected are patients aged 60 years and above. [1] Pathoanatomical, osteoarthritis is characterized with damage and possible loss of the joint cartilage

and creation of new bony growths - osteophytes. The cartilage is a protein substance that acts as a cushion between bones and joints. Loss of the elasticity and the degeneration of joint cartilage appears as an integral part of the aging process in people. [2] In the terms of Traditional Chinese Medicine (TCM), osteoarthritis is known as 'Painful Obstruction Syndrome'. It may occur due to Qi and Blood stagnation or Qi and Blood deficiency. Once the channels are weak, the pathogenic factors Cold, Damp and Wind penetrate at the superficial level and cause pain. The body of the elderly is more prone to Wind invasion, because of the natural underlying deficiency of the Qi and Blood that is progressing with age. Some repetitive movements or old injuries can cause stagnation in the blood and make the channels more prone to the pathogenic factors. Emotional problems like resentment and anger can be cause for Qi and Blood deficiency. [3] Fire needles and fire cupping as part of the TCM are used as safe ways to naturally reduce joint and muscle pain, to remove the factors that cause the disease and to get the Qi and Blood to move well.

## Material and methods

The treatments were done in a clinic for Traditional Chinese Medicine and acupuncture in Skopje by a doctor specialist in acupuncture, indoor on a temperature of 25°, with duration of 20-30 minutes. In all patients was applied acupuncture treatment with fire needles on certain trigger points called Ashi, with duration of 10-15 minutes and fire cupping with duration of 5-10 minutes at the same points. One specific point which is located on the inside side of the knee was treated in all patients. Five punctures with the needle were made in one acupoint. For the fire needle acupuncture was used one point sharp-headed fire needle made of tungsten steel. The fire needle, which was heated by ethanol lamp was quickly inserted five times in each point. The needle is inserted immediately and removed instantly with no retention. After that was done fire cupping with round glass cups inserted on each of the points. Cups were heated by ethanol lamp and placed on each point, causing partial

vacuum where the skin is sucked into the glass. Patients have done one treatment every week, with series of ten treatments and pause of one month afterwards. The research includes 32 patients, of which 21 women and 11 men, on age from 33 to 78.

### Results and discussion

In the research are included 32 patients who were diagnosed with knee osteoarthritis with clear visible signs of osteoarthritis on CT, MR and X-ray scans. Included patients were randomly selected of the list of patients who have done treatments in the past one year. There were 11 male and 21 female patients, which confirms the fact that women are more often affected by men. [4] The patients were on age from 33 to 78. In table 1 are shown the age groups of the patients. The most patients are in the age group of 60 to 70 years (11 patients). In the group of >70 years there were 10 patients, 6 patients in the 50-60 age group, 1 patient in the 40-50 age group and 4 patients in the age group of 30-40. By some other researches made, osteoarthritis is most common in patients over 65 years old. [5, 6]

According to the number of treatments done, most patients have done less than 5, specifically 15 patients. 12 patients have done 5-10 treatments, 4

patients 10-15 and only 1 patient more than 15 treatments. The same results are shown on table 2.

The effect is different in all patients with certain number of treatments done, but most patients felt better with less than 5 treatments. A 67 year old female patient had extreme pain in the right knee, with edema and disability to walk. She claimed that after only 3 treatments she was able to climb stairs and uphill and the pain and edema were totally gone.

The most common symptom was pain, which occurred in all the patients. Other symptoms were edema - in 6 patients, insomnia - in 4 patients, limited motion in 3 patients, loss of balance in 2 patients, tingling sensation in 3 patients, high blood pressure in 11 patients and 6 patients were diabetic. Patients who have diabetes are twice as likely to have arthritis. Diabetes starting like a hormonal problem, it can evolve into joint problem causing joint pain, swelling, nodules under skin, thickened skin and etc. [7] Also osteoarthritis increases the risk of developing heart diseases, like high blood pressure. [8] From the treatments made with fire needle acupuncture and fire cupping, effect was reached in all patients and all the symptoms (pain in the knee, edema, limited motion, numbness, loss of balance, insomnia) that patients complained about before were gone.

Table1. Age groups

| Age   | Number of patients |
|-------|--------------------|
| 30-40 | 4                  |
| 40-50 | 1                  |
| 50-60 | 6                  |
| 60-70 | 11                 |
| >70   | 10                 |

Table.2 Number of treatments done

| Number of treatments | Number of patients |
|----------------------|--------------------|
| <5                   | 15                 |
| 5-10                 | 12                 |
| 10-15                | 4                  |
| >15                  | 1                  |

The fire needle therapy works in the ways to enhance the immune function, promote the metabolism, repair the cells and with the fire through the needle and meridians is improved the microcirculation in the body, blood stasis is canceled, local blood is accelerated and pain is removed. [9]

Because this condition is seen as due of invasion of external pathogenic cold, wind and dampness, the most important is to remove these factors. The invasion of these factors obstructs the channels,

leading reduced Qi energy and blood circulation and consequently, pain. [10] Cupping and acupuncture both can help dispel the stagnation, which can lead to disease. Fire needle acupuncture alleviates the joint pain and swelling and improves the physical movements. It warms and improves the Qi energy in the meridians, regulates the function of the Zang Fu organs, enhances the blood circulation and removes the cold and dampness. From pathological view the inflammation is

reduced, edema and contractures are eliminated. [11]

Cupping is practiced with round glass cups and helps to remove the harmful substances and toxins from the body, which in turn improve the immune system. The circular bruising can be seen on the treated points and these are outcome of the suction created by the cups which bring blood to the surface of the skin. These bruising are normal and

are rarely painful. Cupping is used to restore the balance between the Yin and Yang, to eject the pathogenic factors, promote the blood circulation and alleviate the pain. Cupping helps to remove the blood from the body which may be harmful, to relieve the painful muscle tension, to improve the microcirculation and to help the patient's functional state to normalize. [12] On figure 1 and figure 2 are shown patients during the treatment.



*Figure1. Insertion of the fire needle*



*Figure2. Cupping*



*Figure3. Ashi point on the inside side of the knee*

On figure 3 is shown the point that was treated in all patients. Points were selected depending on the location of the pain i.e. trigger points, called Ashi. The one point located on the inside side of the knee is a specific point for the knee osteoarthritis which all patients pointed to it like the most painful point. Acupuncture at Ashi points involves needling directly into the discovered areas of pain. Japanese shiatsu, Thai massage, Swedish deep tissue massage also use Ashi points for treatment. The true injury is at the Ashi point, which usually is manifested as a knot at specific location along its pathway. The pain in the point is not as usual pain, but it is unexpected in intensity and instant, causing weakness of the muscles. [13]

Combined treatment of fire needle acupuncture with fire cupping is one of the most commonly used in knee osteoarthritis and thus gives most satisfactory results in the treated patients so far.

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