

Acupuncture Beats Ibuprofen For Knee Arthritis

Published by [HealthCMI](#) on 1 March 2018.



Researchers find acupuncture combined with tuina massage more effective for the treatment of knee osteoarthritis than ibuprofen. Across two independent studies, researchers made several important findings. One important discovery is that acupuncture plus tuina produces superior treatment outcomes compared with oral intake of ibuprofen (a nonsteroidal anti-inflammatory drug). Keep reading, you may find some shocking information about ibuprofen therapy that may make you reconsider long-

term exposure to the drug.

Yueyang Hospital of Integrated Traditional Chinese Medicine and Western Medicine researchers (Fan et al.) conclude that acupuncture plus tuina has a 90.0% total treatment effective rate. Ibuprofen achieved an 87.5% total treatment effective rate. Acupuncture plus tuina slightly outperformed ibuprofen. Let's take a look at the study and what acupoints delivered the clinical results.

Fan et al. had a sample size of 80 patients and conducted a clinical trial at the Yueyang Hospital of Integrated Traditional Chinese Medicine and Western Medicine (Affiliated Hospital of Shanghai University of Traditional Chinese Medicine). Patients were randomly divided into an acupuncture group and a medication group, with 40 patients in each group. The acupuncture group received a combination of acupuncture and tuina therapy and the medication group received ibuprofen. The primary acupoints selected for all patients were the following:

- EX-LE5 (Neixiyan)
- ST35 (Dubi)
- EX-LE2 (Heding)
- SP10 (Xuehai)
- ST34 (Liangqiu)
- ST36 (Zusanli)
- GB34 (Yanglingquan)
- SP6 (Sanyinjiao)

Treatment commenced with patients in a supine position. After disinfection of the acupoint sites, a 0.30 mm x 40 mm disposable filiform needle was inserted into each acupoint with a high needle entry speed. Upon elicitation of a deqi sensation, the reinforcing-reducing technique was applied by twisting and twirling the needle. The manual acupuncture manipulation technique was applied for one minute at each

point. A 20-minute total needle retention time was observed. One acupuncture session was conducted daily, for a total of 20 days.

Patients in the acupuncture group also received tuina massage therapy for 20 minutes, once daily, for a total of 20 days. The specific protocol used is as follows:

- First, patients were instructed to rest in a supine position. Rolling manipulation was performed on the anterior, lateral, and interior side of the thigh. Next, kneading and pressing manipulations were used around the knee joint, especially at Futu (ST32), Liangqiu (ST34), Dubi (ST35), Xuehai (SP10), Yanglingquan (GB34), Zusanli (ST36) and Ashi points.
- Afterwards, the patients switched to a prone position. The rolling manipulation was used on the popliteal fossa region, while the kneading and pressing manipulations were applied on the leg, especially at Weizhong (BL40), Weiyang (BL39), Heyang (BL55), and Chengshan (BL57) acupoints.
- After that, rotating manipulation was performed on the knee joint, and passive or resistance movements of the knee joints were made, such as flexion and extension. The rubbing manipulation was used on the patella with wintergreen oil as the final tuina procedure.

For the medication group, patients received ibuprofen tablets (Fenbid, 0.3 g/tablet, GlaxoSmithKline Investment Co., Ltd., UK), one tablet each time, twice per day, for a total of 20 days. The results tabulated, acupuncture plus tuina slightly outperformed ibuprofen for the treatment of knee osteoarthritis.

Zhengzhou Orthopedic Hospital

Let's look at another investigation yielding important results. In a randomized controlled clinical trial, Qiao et al. (Zhengzhou Orthopedic Hospital) investigated the treatment efficacy of two Traditional Chinese Medicine (TCM) protocols. The researchers determined that acupuncture combined with tuina yields better treatment results than tuina as a standalone therapy.

Tuina, as a standalone therapy, produces an 80.95% total effective rate for the treatment of knee osteoarthritis. However, adding acupuncture increases the total effective rate to 92.00%. The acupuncture plus tuina group outperformed the tuina group by 11.05%. The total effective rate includes all patients that completely recovered or those that had significant relief of symptoms and improvements in daily life activity functioning.

A total of 92 patients were treated and evaluated in the study. They were randomly divided into a treatment group (n=50) and a control group (n=42). The treatment group underwent both acupuncture and tuina therapy while the control group received only tuina therapy. The specific protocol used for the tuina treatment was the following:

- Relaxing the muscles: Treatment commenced with patients in a supine position. Rolling and kneading manipulations were used on the muscles surrounding the knee joints.
- Plucking and pressing the points: The following points were plucked and pressed: Zusanli (ST36), Yanglingquan (GB34), Weizhong (BL40), Neidubi (M-LE16), Waidubi (ST35), and Ashi points. Each point was plucked and pressed for one minute.
- Adjusting the joints: The patella was pushed and kneaded repeatedly from downward to upward and from the interior to the exterior. The force was generally increased until a sore, heavy, and distended feeling was observed or to patient tolerance levels. Next, the patella was pushed in

alternatively clockwise and counter-clockwise directions. This manipulation was conducted at a rate of 120 times per minute.

- Relaxing the muscles: Rolling and kneading manipulations were used again on the muscles surrounding the knee joints.

Patients from the treatment group also received acupuncture at the following primary acupoints:

- SP9 (Yinlingquan)
- GB34 (Yanglingquan)
- ST34 (Liangqiu)
- SP10 (Xuehai)
- EX-LE4 (Neixiyan)
- EX-LE5 (Waixiyan)

Additional secondary acupoints were added based on symptom presentation:

- Wind-cold assailing the meridians: GB31 (Fengshi)
- Liver and Kidney deficiency: BL18 (Ganshu), BL23 (Shenshu)
- Static blood obstructing the meridians: BL17 (Geshu), SP6 (Sanyinjiao)

After disinfection of the acupoint sites, a 0.30 mm x 40 mm disposable filiform needle was inserted into each acupoint, reaching up to a maximum depth of 1–1.5 cun. The insertion angle was perpendicular. Upon achieving a deqi sensation, the mild reinforcement and attenuation (Ping Bu Ping Xie) manipulation technique was applied to each needle. A 20-minute needle retention time was observed.

While the needles were retained, moxibustion was applied to the same acupoints. An approximately 2 cm length moxa roll was attached to the end of each needle and ignited. The moxa rolls were retained for 8–12 minutes. One acupuncture session was conducted daily for a total of 30 days.

The researchers provide some insight into TCM principles relative to the treatment of knee osteoarthritis. For the tuina treatment, plucking and pressing the points promotes local qi and blood circulation and regulates the meridians. Adjusting the joints reduces tissue adhesion, expands the narrow joint spaces, and lubricates the joints. For the acupuncture treatment, needling the points promotes blood circulation, removes stasis, and reduces pain by activating the qi flow in related meridians.

Root and Symptom

The distinction between TCM therapeutic modalities (acupuncture, tuina, herbs) and drug therapy is perhaps best elucidated by reference to the Chinese medicine therapeutic principle of root and symptom. Acupuncture and tuina therapeutically work to resolve the root cause of a condition and exacerbating factors that lead to long-term joint degeneration. Drug therapy primarily reduces pain and inflammation to control symptoms. Long-term drug use may provide some protection against joint degradation but also presents the risk of adverse effects.

Ibuprofen may disturb the gastrointestinal tract and lead to disruption of hormone secretions. Kristensen et al. note, “Our data demonstrate that ibuprofen alters the endocrine system via selective transcriptional repression in the human testes, thereby inducing compensated hypogonadism.” This is an example of how ibuprofen intake alters human testicular physiology. The researchers highlight that ibuprofen alters the hormonal balance in men. They add, “Previous studies have shown that long-term fetal exposure to

acetaminophen and acetylsalicylic acid in mice and rats targets primordial germ cell proliferation by blocking RNA synthesis and thus leads to reduced follicle reservoir and subsequent decreased fertility in adulthood.”

An advantage of acupuncture and tuina therapy is that they do not cause adverse effects to the endocrine system and gastrointestinal tract. The advantage of drug therapy is that it is readily accessible and portable. Based on the data, access to acupuncture and tuina care is a vital issue for the treatment of knee osteoarthritis for two important reasons. Acupuncture and tuina alleviate pain and inflammation but also prevent dependence on the long-term use of medications that may cause deleterious effects. Patients are advised to consult with local licensed acupuncturists to learn more.

References

1. Qiao Lei. Observation on Clinical Effect of Acupuncture and Massage Combined with the Treatment of Knee Osteoarthritis [J]. Journal of Practical Traditional Chinese Internal Medicine, 2017, 31(9):68-70.
2. Jin Hui. Clinical observation on treatment of knee osteoarthritis by acupuncture and tuina therapy [J]. Clinical Journal of Traditional Chinese Medicine, 2011, 23(5):419-420.
3. Kristensen, David Møbjerg, Christèle Desdoits-Lethimonier, Abigail L. Mackey, Marlene Danner Dalgaard, Federico De Masi, Cecilie Hurup Munkbøl, Bjarne Styrihave et al. "Ibuprofen alters human testicular physiology to produce a state of compensated hypogonadism." Proceedings of the National Academy of Sciences (2018): 201715035.