

Progress of Clinical Research on Acupuncture in the Treatment of Uterine Fibroids

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Abstract: *Uterine fibroids are a common benign tumour of the uterus, mainly due to the excessive proliferation of smooth muscle cells in the uterus. The appearance of fibroids greatly affects women's survival and quality of life, and acupuncture has gained wide acceptance in the treatment of uterine fibroids due to its safety, non-toxicity and accurate efficacy. Now, by collating the clinical applications about acupuncture treatment of uterine fibroids, we have summarised the commonly used acupuncture treatments and analysed their acupuncture point-taking patterns in the hope of finding a more effective and standardised treatment plan for the future treatment of uterine fibroids with acupuncture.*

Keywords: Acupuncture, Uterine fibroids, Acupuncture points, Clinical efficacy.

1. Introduction

Uterine fibroids are a common gynecological disease, a benign tumour that occurs most often in women aged 30-50 years, and about 20% of women of childbearing age have uterine fibroids [1]. Because some fibroids do not have obvious sensation, the reported incidence of uterine fibroids in clinical practice is much lower than the actual incidence, and some patients may present with clinical manifestations such as increased vaginal discharge, increased menstrual flow, and abdominal masses. Currently, western medicine treats uterine fibroids with surgery and drugs, but both have certain side effects. In traditional medicine, acupuncture has a long history of treating uterine fibroids, which can not only dissipate the fibroids, but also preserve the patient's reproductive function [2]. Acupuncture treatment of fibroids has the clinical characteristics of being minimally invasive, safe, simple and effective.

2. Chinese Medicine's Understanding of Uterine Fibroids

There is no direct description of uterine fibroids in traditional medicine, and their clinical manifestations belong to the categories of "obstruction in the abdomen", "obstruction in the abdomen", "stasis" and "accumulation" in traditional Chinese medicine, and so on. The Classic of Difficulties - Twenty-nine Difficulties" says: "Ren is the disease, and its bitter internal knot women as a mass in the abdomen" [3]. Zhen was first seen in the "Jin Gui Yao Liao - women's pregnancy disease pulse evidence and treatment", "women with persistent symptoms of the disease, the menstrual break has not been and three months, and get leakage more than for Zhen chronic harm." And proposed to Gui Zhi Fu Ling Pill under its symptoms [4]. The origin and symptoms of all diseases - women's miscellaneous diseases of the Hou" on the symptoms of the obstruction of the abdomen made a detailed description, and pointed out that the etiology of this disease "due to post-partum organ deficiency cold, or due to menstrual water to and from more than the blood due to the gas" [5]. The Women's Book of good prescriptions" said: "women abdominal blood stasis long time and do not

eliminate, then for the accumulation of the obstruction of the abdomen." It points out the mechanism of "stasis of blood accumulating for a long time as a mass in the abdomen", and clinically it can appear in uterine fibroids and other diseases, which can be softened and dispersed by adding the product of softening and dispersing the knot in the medicines of activating blood circulation and removing blood stasis [6]. The Spiritual Pivot - The Chapter of Water Distension says: "The obstruction in the abdomen is born in the uterus, and the coldness in the zi men can be guided down" [7].

In short, the root cause of leiomyoma is that women's physique is insufficient, and the external wind, cold and dampness, or emotional, dietary injuries, dysfunction of internal organs, resulting in stagnation of qi in the body, stasis of blood and other pathological products stagnate in the uterus.

3. Western Medical Understanding of Uterine Fibroids

The severity of fibroid symptoms is related to their location, number, size and growth rate, and the exact cause of fibroids is not yet known. Western medicine believes that family inheritance, high hormone levels and stem cell dysfunction may be important causes of fibroids. Cytogenetic studies have shown that cytogenetic variation exists in about 20% of uterine fibroids [8]. Uterine fibroids run in families, with a higher prevalence in daughters of fibroid patients than in the general population [9]. Uterine fibroids are oestrogen - dependent and have significantly higher levels of oestrogen receptors in their tumours compared to the surrounding normal muscle [10]. It has been reported that progesterone is more abundant in leiomyomas compared to normal smooth muscle tissue, and progesterone also promotes the growth of leiomyomas [11]. Studies have shown that fibroid cells are transformed from tissue stem cells in the uterus [12]. Under the high secretion of oestrogen and progesterone, the tissue stem cells will continuously renew themselves and proliferate, and some of them will be transformed into smooth muscle tumour cells.

4. Progress of Clinical Research on Acupuncture in the Treatment of Uterine Fibroids

Early reports on acupuncture for uterine fibroids are scarce. Uterine fibroids are benign lesions that are common in middle-aged women between the ages of 30 and 50. Currently, western medicine treats fibroids with surgery and drugs, which have both efficacy and risk. In recent years, acupuncture treatment can achieve the effect that surgery and drugs can not achieve, and will not bring great physical and psychological pain to the patient, which is accepted by the patient. The author summarises the clinical study of acupuncture treatment of uterine fibroids as follows:

4.1 Millipuncture

4.1.1 “Four points and eight needles” acupuncture method

In the treatment of uterine fibroids, the “four points and eight needles” acupuncture method selects bilateral foot Sanli, Yinlingquan, Diji, Sanyinjiao and other points [13]. The foot Sanli is the conjunction point and lower conjunction point of the foot Yangming stomach meridian. Uterine fibroids are mostly caused by the blockage of qi and blood, and the Yangming meridian is a meridian with many qi and blood, so acupuncture on the foot Sanli can benefit qi and nourish blood. Diji point is a Qie point of the foot-taiyin spleen meridian, and a Qie point of the yin meridian is mainly used for treating blood disorders. Acupuncture on Diji point can activate blood circulation and remove blood stasis. Sanyinjiao is the intersection point of the kidney, spleen and liver meridians, with the functions of dispersing the liver, strengthening the spleen and nourishing the kidney, and is an important point for treating gynaecological diseases. Yinlingquan is the conjunction point of the foot-taiyin spleen meridian, which is an important point commonly used clinically for treating dampness, and has a very good effect of strengthening the spleen and resolving dampness. This method of acupuncture uses a small and precise number of acupuncture points, which can effectively reduce the pain of patients and make the size of myoma reduced, which is easy to be accepted by patients and is worth promoting in the clinic.

4.1.2 “One Needle, Two Moxibustion, Three Consolidation” Integrated Acupuncture Therapy

The “one needle, two moxibustion, three consolidation” integrated acupuncture therapy [14] for the treatment of uterine fibroids consists of three steps: firstly, acupuncture points are needled with millimetre needles, which is known as “one needle”; secondly, fine moxibustion is used, which is called “two moxibustion”; and then intradermal needles are used to retain Yu points or auricular points, which is called “three consolidation”. Secondly, the second moxibustion method is called “two moxibustion”; and then the intradermal needles are used to retain the yu points, collection points or ear points, which is called “three consolidation”. The “one needle” selects Gongsun, Neiguan, Zhongkou, Xiakou, Qihai, Guanyuan and other points. Gongsun point is a complex point of the foot-taiyin spleen meridian, the spleen is the source of qi and blood biochemistry, the main blood; Neiguan is a complex point of the hand-shaoyin heart meridian, the heart is

the master of blood, the master of the blood, and Gongsun, Neiguan is the eight chakra rendezvous points, Gongsun passes through the Chong vein, Neiguan passes through the yin and Wei veins, and the two have the effect of regulating the blood and qi and dredging the Chong vein. The four acupoints of the middle epigastric region, lower epigastric region, Qihai and Guanyuan are all located in the abdomen above the Ren vein. The middle epigastric region is the recruitment point of the foot Yangming gastric meridian, which can regulate the middle jiao qi, and regulate the efficacy of the elevation of the spleen and stomach when combined with the lower epigastric region; the Qihai and Guanyuan are commonly used health points in clinical practice, which are very good at replenishing the kidneys and kidney, and the four acupoints of the spleen and kidney can both supplement the kidney, the kidney is the basis of the innate nature, and the spleen is the basis of the innate nature; the combination of these acupoints can nourish the latter day and supplement the innate nature. The combination can play the role of nourishing the latter day to replenish the latter day. The “two moxibustion” local selection of the uterus, qihai, guanyuan, eight iliac points, the precise heat of the essence of moxibustion to penetrate into the local lesions, so that the local yin and cold evil qi for warm dispersion. Another two points, Zhangmen and Plankton Root, were taken to be used in conjunction with each other in order to get rid of the plaque of uterine fibroids. At the same time, Lung Yu, Four Flowers (Diaphragm Yu, Gallbladder Yu), Liver Yu, Spleen Yu, Kidney Yu and other points are selected to stimulate Yang Qi of the whole body and tonify Qi and blood. This is a combination of acupuncture and moxibustion, which can be very effective in the treatment of uterine fibroids.

4.1.3 Acupuncture with Tuina

In a clinical study by Chu Hongbo et al [15], 60 patients with uterine fibroids (blood stasis type) were treated with acupuncture and tuina. Patients were treated with acupuncture after the administration of tuina therapy to unblock local qi and blood, and the acupoints were selected as Sanyinjiao, Taichong, Hegu, Neiguan, Blood Sea, Yinlingquan, Guanyuan, Tianshu, Qihai, and Zhongji. San Yin Jiao is the intersection of the liver, spleen and kidney meridians, and has the effect of tonifying the liver, spleen and kidney. The original point of the foot syncopal liver meridian is Taichong, and the original point of the hand yangming large intestine meridian is Hegu. Yangming meridian has more qi and more blood, while syncopal meridian has more blood and less qi, and the two points of Hegu and Taichong, which are often referred to as the “opening of the four passes”, complement each other and can play a role in regulating the qi, blood, and yin and yang effects. Neiguan is an acupoint of the pericardium meridian, which is effective in regulating qi and relieving pain. Blood Sea and Yinlingquan are points of the spleen meridian, which are commonly used to regulate menstrual flow and have the effect of strengthening the spleen and resolving dampness. Guanyuan, Tianshu, Qihai and Zhongji points are all located in the abdomen, which can dredge local qi and blood and relieve symptoms. After acupuncture and acupressure were performed on patients with uterine fibroids, the size of the tumour was reduced compared to the previous one, which is suitable for clinical promotion.

4.1.4 Electroacupuncture with Chinese medicine

In the clinical trial report of Professor Wan Lingxia's combined application of electroacupuncture and traditional Chinese medicine to uterine fibroids [16], the patients were treated with traditional Chinese medicine, and the points of the uterus, Guanyuan, the Sea of Blood, the Sanyinjiao, the Yinlingquan, the Diji, the Hegu, and the Ahshi points were selected to be stimulated with continuous pulses connected to the electroacupuncture instrument after obtaining qi from the needling. The uterus point is an extra-meridian point for the treatment of this disease, which can regulate the qi and blood of the uterus; Guanyuan is the meeting point of the Ren and Sanyinjiao meridians; the Sea of Blood, Yinlingquan, and Diji are the points of the spleen meridian, which can regulate the meridian and unify the blood and strengthen the spleen to resolve the dampness; Hetan is an acupoint of the large intestinal meridian, which can activate the blood and pass the meridian when paired with Sanyinjiao; and Ahshi acupoint can unblock the local qi and blood and relieve the clinical symptoms. The combination of traditional Chinese medicine and electroacupuncture can reduce the average size of uterine fibroids, with remarkable clinical efficacy and low cost, which is worthy of promotion.

4.2 Fire Needle Therapy

He's fire needle [17] in the treatment of uterine fibroids, usually choose the Ren vein, foot Yangming stomach meridian on the two points, so in the clinical selection of Qihai, Shui Dao, AYi points, Guan Yuan, Zhong Ji and other points, with fire needle quickly puncture points about 1.5 inches deep and do not leave the needle, in the period of menstruation, every other day, every 10 times for a course of treatment. Qihai, Guanyuan, Zhongji three points are the points of the Ren vein, Ren main twins, acupuncture on the Ren vein can play a blood warming effect. Qihai is strong in tonifying qi, and qi can move blood, so acupuncture at Qihai can regulate qi and blood; Guanyuan is strong in warming the kidneys; Zhongji is the meeting point of the Ren Vein and the Foot Triple Yin Meridian, and is also the collection point of the Foot Solar Bladder Meridian, which has the effect of regulating the liver, the spleen, and the kidneys. Shui Dao is an acupoint of the Stomach meridian, and in conjunction with Zhongji, it has the function of facilitating the bladder and clearing dampness and heat. Plankton is an extra meridian point with good efficacy in moving Qi and relieving pain. A Yes point dredges local Qi and Blood. The function of fire-needle therapy is to use the heat of fire-needle to stimulate acupoints, induce meridians, regulate and change the pathological state of the human body, invigorate blood circulation, remove blood stasis, and warm the meridians in order to stop the growth of leiomyosarcoma. He's Fire Needle has obvious advantages in preventing and relieving patients' postoperative pain, and is a conservative therapy with clinical advantages.

4.3 Warm Acupuncture Therapy

4.3.1 Warm acupuncture at uterine points

In the clinical observation of Xu Xiaohong [18] and others who used uterine acupuncture point warm acupuncture as the

main treatment for uterine fibroids, the patients were given the treatment plan of uterine acupuncture point warm acupuncture as the main acupuncture point, and at the same time, the method of flat tonicity and flat diarrhoea was used to apply to the acupuncture points of yinlingquan, sanyinjiao, qihai, zhongji, guanyuan and so on. The uterus point is a meridian point, which has a very good effect on regulating the qi and blood of the uterus. The results of this experiment showed that the "warm needle" therapy with the "uterus point" as the main means can effectively increase the total effective rate of the treatment of uterine fibroids, and play an irreplaceable role in improving the quality of life of the patients, and it is also a good way to improve the quality of life of patients. It plays an irreplaceable role in improving the quality of life of patients, and has little side effects, so it has a good value for promotion.

4.3.2 Warm acupuncture with Chinese herbs

Guo's warm needling and Tangerine Lai Dispersing Pill were combined in the clinical treatment of uterine fibroids [19], which was based on traditional Chinese medicine treatment. Its main points were Guanyuan, Sanyinjiao, Blood Sea, and Uterus (double). Warm acupuncture was added to all four points, and 1 month was 1 course of treatment, with a total of 3 courses of treatment. Guanyuan and Uterus are both located in the lower abdomen, belonging to the local selection of points, can play a role in unblocking the local qi and blood; Sea of Blood is a foot Taiyin spleen meridian point, with the role of regulating menstruation; Guanyuan and Sanyinjiao belong to the foot of the triple yin meridian of the intersection of the three yin meridians, the three yin has a certain role in regulating the foot of the triple yin. On the one hand, the use of warm acupuncture therapy can make the needling sensation reach the lesion directly, dredge the blood veins and dissipate the stasis; on the other hand, through the conduction of the needles can make the heat of moxibustion reach the lesion directly, assisting in the dissipation of the stasis, and the use of this method of treatment is conducive to the reduction of the size of the leiomyoma, and the clinical efficacy is satisfactory.

4.4 Acupuncture Point Burial

4.4.1 Individual Acupuncture Point Embedding

Zhao Xia [20] conducted a study on the therapeutic effect of uterine fibroids with the method of burying threads at acupoints, choosing Taichong, Sanyinjiao, Baresao, Guanyuan, and Uterus, and burying them under the skin of the corresponding acupoints or in the muscles with 1cm and 0.5cm long sheep's intestinal threads in the torso and the lower limbs, respectively, which can be absorbed by themselves in the body. Taichong is the original point and acupoint of the foot syncopal liver meridian, which has the effect of relieving the liver and depression; Sanyinjiao is the meeting point of the foot triple yin meridian, which has the effect of inducing dampness and strengthening the spleen and tonifying the liver and kidneys; Baresao is the part of the human body where qi and blood converge, and the acupuncture point can promote the smooth flow of qi and blood in the body; Guan Yuan is the meeting point of the foot triple yin meridian and the Ren vein, which has the effect of warming the kidneys and warming the uterus and tonifying the yuan energy; and the uterus is a miraculous point outside

the meridian with the effect of tonifying the cytosine and activating blood and eliminating blood stasis. It has the effect of regulating the uterus and activating blood circulation and removing blood stasis. This method not only prolongs the stimulation time, but also reduces the number of times the patient has to go to the doctor, has the effect of regulating the Chong Ren, dredging the meridians and collaterals, regulating qi and blood, and levelling yin and yang, which will ultimately make the fibroids stop growing, shrink and disappear.

4.4.2 Acupuncture Point Embedding with Proprietary Chinese Medicines

Yang Mengxiang [21] et al. treated uterine fibroids with oral Guizhi Poria capsule plus acupoint buried thread. On the basis of proprietary Chinese medicine treatment, acupoint buried threads were used. Zhongji, Guanyuan, Shuidao, Guilai, and Plankton root were taken as the main treatment points, and the thread embedding was started on the third day after menstruation ceased, with an interval of 7 days, and the treatment was carried out for 3 months. Because fibroids occur in the lower abdomen, and the circulation of Ren vein also passes through the lower abdomen, so Zhongji and Guanyuan of Ren vein were selected; Yangming is a meridian with many qi and blood, so Shui Dao and Guilai of Foot Yangming Stomach meridian were selected. This method can promote leiomyoma to stop growing, shrink and disappear, and the price is low and the pain is small, clinical worth promoting.

4.5 Acupuncture Point Injections

Yang Haihua [22] used acupoint injections for the treatment of uterine fibroids, employing the use of acupoint injections on the patient in the context of basic treatment, usually 3 days after the end of menstruation, by giving the patient 2 ml of compound Angelica sinensis injection + 10 ml of sodium tanshinone IIA sulfonate injection. The points of Ah Yes, Guan Yuan, Qihai, Zhongji, Uterus (double), Foot Sanli (double) and Sanyinjiao (double) were selected and injected using a 5-7 gauge needle, 4 points were selected at a time, and after routine sterilisation the needle was painlessly inserted to slowly advance 1 ml of the drug. The role of acupoint injection is to combine acupuncture stimulation, drug properties and penetration into the acupoints, so that they produce a combined effect, this method can effectively reduce the size of leiomyosarcoma, which has a better clinical application value.

5. Conclusion

Acupuncture treatment of uterine fibroids is effective and has the advantages of safety, convenience and small side effects. Uterine fibroids are closely related to the stomach, spleen and kidney in the internal organs, and medical practitioners of all times believe that the disease is located in the uterus, and the key of the disease mechanism is deficiency of the vegetative body and stagnation of blood stasis; the treatment focuses on activating blood circulation and removing blood stasis and softening and dispersing the knots. Acupuncture and moxibustion treatment for uterine fibroids has various methods, commonly used are acupuncture, fire needle,

electroacupuncture, warm needle, acupoint injection and acupoint embedded thread, in the clinic, we need to choose the appropriate treatment method according to the patient's compliance and the number of treatments. Acupuncture treatment generally stimulates Guanyuan, Uterus, Sanyinjiao, Ashigaru, Qihai and other acupoints to dredge the meridians and collaterals, regulate qi and blood, activate blood circulation and remove blood stasis, and ultimately reduce the size of fibroids. However, the treatment of uterine fibroids cannot only rely on acupuncture therapy, patients should be allowed to strictly monitor their condition in daily life, have regular review, eliminate their fear of the disease, and maintain a good state of mind.

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