



Traditional Chinese Medicine (TCM) in the Management of General Gynaecological Disorders/Conditions

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Introduction

In the past menstrual pain in women was often thought to be psychosomatic. We now understand that menstrual pain is real. It has been recognised that gynaecological diseases/disorders such as endometriosis, dysmenorrhoea, menorrhagia, and pelvic inflammatory diseases are not minor problems for women affected. They often affect women's quality of life and even reduce their productivity in general. Sufferers deserve appropriate medical consideration.

In conventional western medicine, gynaecological disorders/conditions are often treated with surgery, hormones, non-steroidal anti-inflammatory drugs (NSAID), antibiotics and so on. Though the efficacy of these treatments is rapid and widely accepted, there are many potential side effects such as nausea and vomiting related to surgery/anaesthetics; sexual problems after hysterectomy; skin rash or digestive problems related to drugs, or more seriously liver, kidney, and heart impairment related to some drugs, especially when taken for an extended period. Furthermore, some women may not respond to these treatments. The goal of any treatment is to relieve symptoms as well as to improve and restore the patient's general health, and to improve their quality of life. This may be achieved by integration of complementary or alternative therapy such as TCM into conventional medicine.

Treatment of gynaecological disorders/conditions with traditional Chinese medicine (TCM) — scientific research and clinical studies

In China, there is a long history of treating gynaecological disorders/conditions with TCM. In modern times, the integrated medical care of combining conventional western medicine with TCM has been safely provided by doctors as part of their routine medical practice in China and other Asian countries and part of the western world. Thousands of case reports showing the efficacy of TCM in the treatment of dysmenorrhoea and other symptoms/conditions associated with menstruation, polycystic ovarian syndromes, endometriosis, vaginal discharge, and many more. Recent scientific research studies have demonstrated that TCM including acupuncture and herbal medicine is effective in relieving some of the symptoms related to gynaecological disorders/conditions and may provide a safe and effective complementary or alternative to conventional medicine.

Dysmenorrhoea is painful menstruation of uterine origin. It is usually divided into two types: primary dysmenorrhoea (with no detectable pathology and more common in adolescent women) and secondary dysmenorrhoea (frequently associated with a pelvic pathology, such as endometriosis). It is a very common gynaecological complaint with a significantly negative effect on a woman's quality of life. Acupuncture and Chinese



herbal medicine has been successfully used to treat painful menstruation. Tsenov D (1996) treated 48 dysmenorrhoea patients with acupuncture, 24 patients with primary dysmenorrhoea responded very well after one course of 2-4 sessions; 24 women with secondary dysmenorrhoea responded well after two courses of treatment. In a recent clinical trial, Habek D, et al. (2003) reported that within 1 year of acupuncture treatment the menstruation pain disappeared in 93.3% of patients with primary dysmenorrhoea and only 3.7% in the placebo group. It is known that dysmenorrhoea is directly related to elevated levels of prostaglandin F₂alpha (PGF₂α), a potent myometrial stimulant and vasoconstrictor. Chinese herbal medicine was reported to significantly inhibit the production of prostaglandins by human myometrial cells *in vitro* (Shibata T, et al. 1996). Furthermore, a Chinese herbal formula (Wen-Jing Tang) was found to directly suppress spontaneous contractions and prostaglandins F₂alpha-induced contractions of rat uterine smooth muscle *in vitro*, which may be the main mechanisms by which it controls menstrual pain (Hsu CS, et al. 2003). In a double-blind study, patients were treated with either herbal medicine (Tokishakuyaku-san) or placebo during 2 menstrual cycles and were followed for 2 additional cycles. A significant alleviation of menstrual pain was observed in the herbal medicine group but not in the placebo group (Kotani N, et al 1997).

Endometriosis is a disease in which the lining of the uterus (endometrium) is found outside of the uterus (ovaries, fallopian tubes, bladder, and bowel, etc). The common symptoms of endometriosis are cramping menstrual pain that may worsen with time, extremely heavy menstrual flow, diarrhoea or painful bowel movements, especially prior to and during periods, and painful sexual intercourse. It is the main cause of secondary dysmenorrhoea and can cause infertility. Symptoms related to endometriosis may not come all at once, but can seriously affect a woman's life. As with dysmenorrhoea, TCM has been shown to relieve symptoms related to endometriosis (Tsenov D 1996, Kotani N, et al 1997, Hsu CS, et al 2003). In a retrospective case study, interviews were held with 47 young patients who had received acupuncture for migraine headache, endometriosis, etc. Patients had a median of 8 treatments within 3 months. Acupuncture therapies included needle insertion (98%), heat/moxa (85%), magnets (26%), and cupping (26%). Most patients and parents rated the therapy as pleasant (67% children/60% parents), and most (70% children/59% parents) felt the treatment had helped their symptoms; only 1 said that treatment made symptoms worse (Kemper KJ, et al 2000).

Pre-menstrual syndrome (PMS) or pre-menstrual tension (PMT) is a pattern of symptoms that some women experience in the days or weeks before their menstrual periods. For many women these symptoms are most noticeable a few days before their period starts and usually disappear when the menstrual period begins. The symptoms of PMS or PMT vary, but commonly include headache, breast tenderness, acne, fatigue, disturbed sleep, bloating, constipation or diarrhoea, appetite changes, anxiety or depression, irritability, and mood swings. Some women experience more severe symptoms which seriously affect their daily activities. Clinical studies have demonstrated that acupuncture and herbal medicine are effective in treating some of the symptoms associated with PMS or PMT (Chou PB 2005, Hu J 1998, Xu TZ 2005, Roemheld-Hamm B 2005). Habek D, et al. (2002) reported the successful use of acupuncture. PMS symptoms, such as anxiety, mastalgia, insomnia, nausea and gastrointestinal disorders, headaches and migraines, stopped after 2 to 4 sessions. After systemic study of related



publication, it was concluded in Hardy's review that, based on the available evidence, evening primrose oil and chaste tree berry may be reasonable treatment alternatives for some patients with PMS. Dong quai may have some efficacy for PMS when used in traditional Chinese multiple-herb formulas (Hardy ML 2000).

Polycystic ovary syndrome (PCOS) is a chronic medical condition where multiple cysts appear in the ovaries. Hormone imbalance can arise causing problems with ovulation and fertility. Symptoms of PCOS include irregular or no periods, acne, obesity and excess hair growth. TCM has been shown in many clinical studies to restore regular menstruation, relieve symptoms, and induce ovulation in PCOS patients (Yu J. 2004, Stener-Victorin E, et al. 2000, Hou J, et al. 2000). To evaluate whether electroacupuncture (EA) could affect oligo-/anovulation and related endocrine and neuroendocrine parameters in women with PCOS, twenty-four women with PCOS and oligo-/amenorrhoea were included in a non-randomized, longitudinal, prospective study. The study period was defined as the period extending from 3 months before the first EA treatment to 3 months after the last EA treatment (10-14 treatments altogether), a total of 8-9 months. Nine women (38%) experienced a good effect, showed increased rates of regular ovulations. These women also demonstrated a significantly lower levels of body-mass index (BMI), serum testosterone concentration, serum testosterone/sex hormone binding globulin (SHBG) ratio and serum basal insulin concentration and significantly higher levels of serum SHBG than those who did not respond to EA. It was concluded that repeated EA treatments induced regular ovulations in PCOS with oligo-/amenorrhoea (Stener-Victorin E, et al. 2000). Hou J, et al. (2000) compared the effects of a common Chinese herbal formula (Tianguai Fang) with metformin in PCOS patients. They found that both metformin and the Chinese herbal formula reduced the high serum levels of insulin in patients and induced regular ovulation. Furthermore, the herbal formula showed a better efficacy than metformin.

In a recent review, Rangel JAO, et al. (2005) examined the results of the clinical application of systemic medicine (based on herbs and other natural remedies) in chronic degenerative diseases through retrospective studies carried out at the Adaptogenic Medical Centres and other hospitals located in Venezuela and Puerto Rico. The results were extremely encouraging. Thirty-five patients with PCOS were included in a retrospective, multicentre, descriptive 2 year long study. The systemic medicine improved pelvic pain in all 20 symptomatic patients, menstrual disorders (amenorrhoea, oligomenorrhoea, dysmenorrhoea, menorrhagia, menometrorrhagia,) in all 22 symptomatic patients, weakness and headache in all 17 symptomatic patients, and acne and hirsutism in 8 out of 9 (89%) symptomatic patients. Pelvic ultrasound scans revealed that 29 patients (82.8%) experienced a total disappearance of ovarian cysts, whereas 6 patients (17.2%) showed decrease in cyst size. Quality of Life (QoL) improved in all patients. Tolerance to treatment was outstanding (100%).

Irregular menstruation Clinical studies have shown that one of the main indications for acupuncture and herbal treatment was dysfunctional uterine bleeding (Yu J, et al 1989, Zhang Y 1994, Yu J. 2004). Four hundred and five patients with irregular menstruation were enrolled in a recent study, and treated with Chinese herbal formulae Tiaojing Zhixue (n=304) or Fuxuening (n=101). 78.3% and 97.4% of the patients in the two



treatment groups restored regular menstruation. Over 80% of patients showed improved clinical symptoms, including reductions in weakness, insomnia, and pain. No harmful effects, toxicity or side effects were noticed (Ma K, et al. 2003). Chinese herbal medicine (Xiaoyan Zhixue Capsule) was further reported to treat abnormal uterine bleeding caused by intrauterine devices (IUD) with a 90.3% effectiveness rate, significantly higher than the rate (43.5%) in a control group (Ren JF, et al 2004).

Uterine fibroids (also called leiomyomas, fibromyomas, or myomas) are benign (non-cancerous) growths of the uterus. Three out of four women have uterine fibroids, but most women are unaware of their existence as most fibroids are asymptomatic. However, some women with fibroids experience abnormal uterine bleeding, pressure on adjacent organs (such as bladder), pain, infertility, or a palpable abdominal pelvic mass and they may require treatment. Fibroid-associated symptoms have been found to be relieved by acupuncture (Yan H et al 1994). To investigate the direct effect of herbal medicine on smooth muscle cells, a Chinese herb (*Scutellaria barbata* D. Don, Lamiaceae, commonly used as an anti-inflammatory and anti-tumour agent) was studied in an *in vitro* experiment. It was found that the herbal medicine significantly reduced human myometrial and leiomyomal smooth muscle cell numbers in culture, arrested cell proliferation, and also induced cell apoptosis (Kim DI, et al. 2005). Clinical trials showed relief of fibroid-related symptoms after TCM treatment as well as a reduction in size of fibroids. One hundred and twenty cases of uterine fibroids were treated with Chinese herbal medicine Kangfu Xiaozheng or Guizhi Fuling. Patients in both treatment groups showed a shrinking of fibroids (confirmed by ultrasound scan) and an improvement of symptoms such as irregular menstruation and pain in the waist and abdomen. The total effectiveness rate achieved was 95.83% and 82.00% respectively in the two treatment groups (Sang H 2004). In a pilot study 37 menstruating women with palpable uterine fibroids were recruited and matched with controls who were enrolled in conventional treatment. The treatment program consisted of weekly traditional Chinese medicine, body therapy (somatic therapy, bodywork), and guided imagery. Treatment lasted as long as 6 months. Fibroids shrank or stopped growing in 22 patients among the treatment group and 3 among the control group ($P < 0.01$). Symptoms of fibroids responded equally well to the therapies. All measures of patient satisfaction were significantly higher among the treatment group compared to those receiving conventional care (Mehl-Madrona L 2002). The effects of a long-term intranasal administration of each of the gonadotropin-releasing hormone analogs (buserelin and nafarelin) on uterine fibroids after conservative treatment using Chinese herbal medicines (Keishi-bukuryo-gan and Shakuyaku-kanzo-to) were investigated in 30 perimenopausal women with fibroids. Hypermenorrhoea and/or dysmenorrhoea as a chief complaint was moderately improved by the treatment using Chinese herbal medicines in more than 60% of the patients with less than fist-sized fibroids, but not those with larger fibroids. Continuous treatment using analogs produced a long-term reduction in fibroids. The results indicate that long-term treatment using Chinese herbal medicines and gonadotropin-releasing hormone analogs for the management of uterine fibroids could be beneficial for patients a few years before menopause (Sakamoto S, et al 1998). At the May 2005 American College for Advancement in Medicine Conference, Dr Warshowsky reviewed an integrative approach to the assessment and treatment of fibroid tumours and stated that patients who received an integrative approach had a mean decrease in fibroid tumour size of 0.8 cm



while those in the control group had an increase in size of 1.9 cm, indicating the importance of integrated medical care in the management of uterine fibroids (Feig SA, et al. 2005).

The efficacy and safety of Chinese medicine in treating vaginal discharge, pelvic inflammatory disease (PID), psychosexual problems and sexual dysfunction has been demonstrated in many clinical studies (Yu X, et al. 1996, Mbizvo ME, et al. 2004, Jin Y 2004, Zhang Q, et al. 2004, Xin X, et al. 2005, Jin Y. 2004, Honjo H, et al. 2004, Aung HH, et al. 2004).

Conclusions

TCM has a long history in the management of gynaecological patients. Although its primary basis rests on empirical evidence as well as case reports, recent clinical studies support its therapeutic modalities in gynaecology. TCM aims at relieving symptoms, restoring health (mental, spiritual, emotional, and physical), and ultimately, improving women's quality of life.

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