

A NARRATIVE LITERATURE REVIEW ON THE WESTERN MEDICINE AND TCM APPROACHES TO DYSMENORRHEA

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Dysmenorrhea is a both common gynecological disorder and one of main excuse for the absence from school or work among adolescent girls and young women. In additions, the quality of life and activity levels are also compromised among dysmenorrheal girls and women. At present, non-steroidal anti-inflammatory drugs (NSAIDs) are the choice of initial treatment in conventional western medicine, while oral contraceptive drugs are the other option. However, recent clinical studies have shown that a promising treatment outcome could be expected by employing Traditional Chinese Medicine (TCM), including acupuncture. In this article, approaches to the diagnosis and the treatment of dysmenorrhea based on the viewpoints either from western medicine or traditional Chinese medicine were introduced. Moreover, a detailed narrative review of the basic science and clinical research on the mechanism, efficacy and outcome for the treatment of dysmenorrhea was provided.

Key words: dysmenorrhea, acupuncture, moxibustion, Traditional Chinese Medicine.

INTRODUCTION AND EPIDEMIOLOGY

Dysmenorrhea is defined as cyclic menstrual pain. Clinically, it is classified into primary and secondary dysmenorrhea. Primary dysmenorrhea is defined as painful menses with the normal pelvic anatomy, while secondary dysmenorrhea is defined as painful menses in association with pelvic disorders, such as endometriosis. Epidemiologic surveys conducted in different regions demonstrate a prevalence of dysmenorrhea ranging from 34% to 50% among young women.¹ The dysmenorrheal patients with moderate or severe symptoms also suffered from reduced desire for socialization with their peers and decreased personal activities. Andersch and Milsom reported that dysmenorrhea affected 72% of 19-year-old Swedish girls and caused limitation of daily activities and there was no response to analgesics in 15% of these girls.¹ Dysmenorrhea is associated with annual productivity loss of 600 million work hours and financial losses of up to \$2 billion dollars.² The prevalence of dysmenorrhea varies with age. This prevalence is highest among the adolescent girls.^{3,4} A longitudinal study of

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Swedish women showed the prevalence was 90% at age 19 and 67% at age 24.⁵ In the same study, menstrual pain interfered with daily activities in 10% of 24 year-old females. The risk factors of dysmenorrhea include age younger than 30 years, early menarche before age 12, low body mass index, nulliparity, heavy menses, long menstrual duration, smoking, and depression/anxiety.¹ However, less physical activity, early childbirth, use of oral contraceptives were not associated with dysmenorrhea.^{1,7,8}

Pathoetiology in western medicine

Dysmenorrhea is caused by an increased release of prostaglandin F2 α , a tissue hormone secreted from the uterine endometrium.^{2,9} The action of prostaglandin F2 α is to stimulate the contraction of uterine muscles. Excessive release of F2 α can be suppressed with non-steroidal anti-inflammatory drugs (NSAIDs) through the inhibition of cyclooxygenase.² Another hormone, vasopressin, which is synthesized in the hypothalamus but secreted from the posterior pituitary, increases uterine contractility, reduces uterine blood flow, and causes ischemic pain of the uterus. In healthy women, the vasopressin receptor density varies over the menstrual cycle, with an increase at the beginning of menstruation. For women with primary dysmenorrhea, the plasma vasopressin levels are seven-fold higher than those for asymptomatic women.¹⁰

Mechanisms of disease in traditional Chinese medicine

In traditional Chinese medicine (TCM) theory, dysmenorrhea is mostly attributed to cold congealment or Qi stagnation. It may result from a weakening or dysfunction of liver, spleen, kidney, or combination of these dysfunctions.¹¹ The followings are the common etiologies:

1. Emotional strains Negative emotions, such as anger or frustration, may lead to "liver-Qi stagnation", which then results in blood stasis in the uterus and causes dysmenorrhea.

2. Cold and dampness Excessive exposure to cold and dampness by drinking icy cold drinks or exposure to cold environments may lead to the invasion of "cold" into the uterus. "Cold" induces the contractions of the uterus and causes blood stasis in the uterus and consequent painful periods.

3. Over-exertion and chronic illness Physical over-exertion or chronic illness can lead to deficiency of Qi and blood, resulting in poor nourishment to the meridians. As a result, the blood flow is impeded, and then blood stasis and menstrual pain result.

DIAGNOSIS AND TREATMENT

A. Clinical features

Primary dysmenorrhea is characterized by cyclic lower abdominal pain, which typically starts just before or at the onset of menstruation and reaches its peak within 24 hours. It is frequently accompanied by blood clots. The patients with secondary dysmenorrhea may have a similar pelvic pain. However, secondary dysmenorrhea may occur in women who do not have a past history of cyclic pelvic pain in their 20s or 30s.

B. Western Medicine Approach

Primary dysmenorrhea is a clinical diagnosis, which is based on absence of any pathologic findings in the patient's history and physical examination except cyclic pelvic pain. However, secondary dysmenorrhea is suggested by abnormal objective findings on physical examination, such as pelvic mass, abnormal vaginal discharge, or pelvic tenderness outside the menstrual period. The causes of secondary dysmenorrhea may include endometriosis (presence of endometrial tissues outside the uterine cavity), pelvic inflammatory diseases (PID), cervical stenosis (narrowing) associated with obstruction, intrauterine device (IUD) use and other pathologies. Determination or confirmation of a specific cause of secondary dysmenorrhea requires additional invasive and non-invasive examinations: Pelvic ultrasonography, a non-invasive image examination, is usually the initial diagnostic test. Sonovaginography, a transvaginal ultrasonography with saline infusion of the uterus, is used to detect the rectovaginal endometriosis. Magnet resonance imaging (MRI) may also be used for the detection of endometriosis. Invasive procedures, such as laparoscopy and laparotomy with biopsy, are performed to diagnose and stage endometriosis.

NSAIDs are well-established as an initial therapy in the western treatment for dysmenorrhea. The analgesic effect of NSAIDs is through the inhibition of prostaglandin synthesis. In one randomized controlled trial (RCT), the NSAIDs, including ibuprofen, naproxen, mefenamic acid and aspirin were shown to be more effective than acetaminophen (a non-NSAID).¹² Cyclooxygenase (COX)-2 specific inhibitors, valdecoxib or etoricoxib, also have similar efficacy, onset of action and duration of effect to naproxen in the treatment of dysmenorrhea. However, use of cyclooxygenase-2 inhibitors showed an increased risk for myocardial infarction.^{13,14}

Oral contraceptive pills are also used to treat dysmenorrhea by reducing prostaglandin release during menstruation.³ It may take up to 3 cycles for menstrual pain to diminish.¹⁵

Other pharmacologic therapy includes nifedipine and danazol: Nifedipine is a calcium antagonist that can effectively reduce the uterine contractility and relieve the menstrual pain within 10-30 minutes during the first menstrual day. However, it also carries the side effect of increased heart rate and transient facial flushing.¹⁶ Danazol, is used in treatment of dysmenorrhea by suppression of menses.

Surgical therapies were applied to some refractory dysmenorrhea. Laparoscopic presacral neurectomy and laparoscopic uterine nerve ablation may be used for these cases.¹⁷

C. Traditional Chinese Medicine (TCM) Approach

According to TCM theory, dysmenorrheal patients can be categorized into different patterns based on their clinical manifestations, including the pulse and tongue findings. The treatment principles and choices of the Chinese medicine therapies depend on the differentiation of patterns. The course of treatment usually starts 7-10 days before menstruation until the onset of or 2-3 days after the menstruation for 3 consecutive menstrual cycles. The following are the common patterns of dysmenorrhea based on TCM theories.^{18,19}

1. Qi stagnation and blood stasis This pattern is characterized by blood-clotted dark menstrual flow associated with breast distension. "Rambling Powder" (xiao yao san) and "Drive Out Blood Stasis Below the Diaphragm Decoction" (ge xia zhu yu tang) are the commonly used herbal formulas.

2. Cold congealment: Cold congealment may be caused by 1) the invasion of cold dampness or 2) the secondary result of yang deficiency.

1) Cold dampness (excess cold) The menstrual pain is relieved by heat, associated with scanty dark flow and cold sensations. "Drive Out Blood Stasis in the Lower Abdomen Decoction" (shao fu zhu yu tang) is the commonly used formula.

2) Yang deficiency with cold (deficiency cold) The pelvic pain is relieved by massage and heat, associated with low back soreness and clear urine. The common herbal formula includes "Warm the Menses Decoction" (wen jing tang).

3. Damp heat: This pattern is characterized by lower abdominal pain with a burning sensation, associated with yellowish or purulent vaginal discharge, and scanty dark urine. The common herbal formula is "Clear Heat Regulate Blood Decoction" (qing re tiao xue tang).

4. Qi & blood deficiency: The pelvic pain is featured by dull pain after the period, associated with scanty flow and light color. "Sage-like Healing Decoction" (sheng yu tang) is the commonly used herbal formula.

5. Kidney and liver deficiency: The dull pelvic pain, appearing at the end or after the period, is associated with low back soreness. The commonly used formula is "Regulate Liver Decoction" (tiao gan tang).

The ingredients of the formulas are listed in the appendix.

Traditional Chinese Medicine Research

A. Acupuncture/Acupressure There have been some recent clinical studies aimed at investigating the mechanisms of acupuncture or TCM theories in the treatment of dysmenorrhea. In TCM theory, the uterus is closely related to the kidneys, "Directing vessel" (ren mai) and "Penetrating vessel" (chong mai). Both vessels originate from the kidneys and have the function of regulating menstruation. LU7 (lieque) and SP4 (gongsun) are the confluent points for "Directing vessel" and "Penetrating vessel" respectively. Based on this theory, dysmenorrhea can be caused by disharmony between "Directing vessel" (ren mai) and "Penetrating vessel" (chong mai). Xie, Lu and Zhao (2004) reported a clinical study involving 80 dysmenorrheal and 80 healthy women. It showed that lower electrical conduction volume on LU7 (lieque) but higher electrical conduction volume on SP4 (gongsun) on the first day of menstruation among dysmenorrheal patients, compared to the healthy group ($p < 0.05$).²⁰ SP6 (sanyinjiao), is one of the most commonly used acupuncture points in dysmenorrhea. Is this effect through a central modulating mechanism? A study, reported by Gong et al. (2006), showed that the acupuncture at right-sided SP6 (sanjinjiao) activated certain brain areas including ipsilateral, contralateral or bilateral pain-related brain areas, including lentiform nucleus, amygdala, hippocampus..., etc. in six patients with primary dysmenorrhea. These changes were detected by positron emission tomography (PET) imaging. In this

Table 1. Randomized controlled trials of traditional Chinese medicine versus western medicine

1st author/ Year	Population	Intervention	Pattern differentiation	Improvement rate
Wei ZH 2000	T: 66 C: 60	T: jia wei si wu tang C: analgesics	Yes	T: 98.5% C: 73.3% (P<0.01)
Song XM 2003	T: 70 C: 50	T: tao hong si wu tang (before periods) & tiao gan tang (after periods) C: analgesics	Yes	T: 91% C: 54% (p<0.01)
Shi JH 2003	T: 60 C: 40	T: tong jing ning C: analgesics	No	T: 96.7% C: 80% (P<0.01)
Ye LL 2004	T: 30 C: 28	T: nu jin jiao nang C: analgesics	No	T: 96.67% C: 57.14% (p<0.05)

T: treatment group

C: control group

study, dysmenorrheal patients received two stimulations: the pseudo-acupuncture stimulation (by tapping needles, not penetrating the skin) during menstruation, followed by an actual acupuncture stimulation at right-sided SP6 (sanjinjiao) during the next or subsequent menstrual period. The actual acupuncture stimulation significantly reduced the menstrual pain scale ($p<0.01$), whereas there was no change of the pain scale after the pseudo-acupuncture stimulation ($p>0.05$).²¹ Habek, Cerkez, Bobic-Vukovic and Vujic (2003) reported a prospective placebo-controlled clinical trial, in which the acupuncture treatment ($n=30$) on Du20 (baihui), LI4 (hegu), Ren3 (zhongji), Ren4 (guanyuan), Ren6 (qihai), GB34 (yanglingquan), UB23 (shenshu), SP6 (sanyinjiao), and Shenmen is more effective than the placebo intervention (by superficial intracutaneous acupuncture without "de qi") for 3 consecutive days before periods for 3 menstrual cycles.²² One earlier RCT, reported by Helms (1987), divided 43 dysmenorrheal patients into four groups of intervention: 1. real acupuncture (RA) group treated with acupuncture on SP4 (gongsun), K3 (taixi), ST36 (zusanli), ST30 (qichong), Ren2 (qugu), Ren4 (guanyuan), Ren6 (qihai) weekly; 2. placebo acupuncture (PA) group treated with randomized non-acupoint acupuncture weekly; 3. standard control (SC) group (no medical or acupuncture intervention); and 4. visitation control (VC) group by non-acupuncture visits with physicians monthly for 3 menstrual cycles and one year-follow-up. The greatest improvement rate was seen in RA group with 90.9%; the improvement rate of PA, SC and VC groups were 36.4%, 18.2% and 10% respectively.²³ There were two RCTs on acupressure: Pouresmail and Ibrahimzadeh (2002) reported 216 high school adolescents with dysmenorrhea, divided into three groups: acupressure, ibuprofen (a NSAID) and sham acupressure (pseudo-acupuncture) groups. Significant reduction in pain scale after the treatment was found in all three groups. However, there was no difference in pain scale

change between acupuncture and ibuprofen groups, which suggested that the acupuncture was as effective as ibuprofen in this study.²⁴ In another RCT (2002), the acupuncture garment "Relief Brief" (an acupuncture device) was applied to 61 women with moderately severe primary dysmenorrhea. In this study, use of pain medication, which had no difference at baseline between control and acupuncture groups, reduced to two pills per day in the acupuncture group but remained at six pills per day in the control group during the second treatment cycle. There were 90% patients in acupuncture group showing significant pain reduction compared to 8% in the control group ($P < 0.05$).²⁵ To compare the efficacy between different acupuncture prescriptions and between acupuncture and western medicine, a clinical study ($n=60$) divided primary dysmenorrheal patients into three groups: 1. back-Shu & front-Mu acupuncture group with acupoints of UB 18 (ganshu), UB20 (pishu), UB23 (shenshu), Ren3 (zhongji), Ren4 (guanyuan), ST25 (tianshu) and Du20 (baihui), 2. conventional acupuncture group with acupoints of Ren4 (guanyuan), Ren6 (qihai), SP6 (sanyinjiao), SP8 (Diji), ST36 (zusanli), LV3 (taichong), LI4 (hegu), and 3. western medicine group with an analgesic product (xiao yen tong pian). The back-Shu & front-Mu group was superior to the conventional acupuncture group and western medicine group ($p < 0.05$ and < 0.01 respectively).²⁶

B. Chinese Herbal medicine: "Warm menses decoction" (wen jing tang) is a commonly used herbal formula for dysmenorrhea in clinic. An animal study ($n=4$) showed "wen jing tang" (1mg/ml) suppressed the PGF 2 α -induced and acetylcholine-induced uterine contractions of rats in vitro. This inhibitory effect exceeded 50% with a linear concentration-response relationship. However, this formula had no effect on the spontaneous contractions of rats' uterine myometrium. The mechanism was caused by the antagonistic effect of "wen jing tang", which stabilized the membrane potential of uterine smooth muscle cells, and consequently decreased uterine contractions.²⁷ In another in vitro study, "wen jing tang" increased the release of luteinizing hormone (LH) from the pituitary by 60-95%, through hypothalamic luteinizing hormone releasing hormone (LHRH).²⁸ Some other clinical studies evaluated the efficacy of other herbal formulas on dysmenorrhea. In one double-blinded, placebo-controlled clinical trial on herbal medicine, primary dysmenorrheal patients with the patterns of "cold, deficiency, yin and blood stasis" (determined by a diagnostic scoring system) were divided into a herbal group ($n=20$), treated with "Toki-shakuyaku-san" (dang gui shao yao san) 7.5g/day, and a placebo group ($n=20$) for 2 menstrual cycles. No significant difference in the pain scale was seen in both groups during the 2-cycle baseline period. During the 2-cycle treatment period, improvement of the dysmenorrheal pain was observed in both groups, but it was better in the herbal group. In the placebo group, a significant reduction in consumption of diclofenac sodium (an analgesic) was found only in the third cycle. However, the herbal group had a significant reduction in the consumption of diclofenac sodium at all time data points during the treatment and 2-cycle follow-up period. In the same study, the plasma levels of follicular stimulating hormone (FSH), luteinizing hormone (LH), prolactin and estradiol did not change during and after treatment.²⁹ In another RCT of a patent herbal formula "Pacifying Painful Menstruation" (tong jing ning), versus fenbid (a NSAID) for dysmenorrheal patients, there is no difference in improvement rate between these two groups for patients with mild severity. However, for patients with moderate and severe symptoms, the herbal group showed better response than the fenbid group ($p < 0.05$ and < 0.01 respectively in moderate and severe group).³⁰ A single herb, rose, is thought

to have the anxiolytic effect by "regulating the liver Qi". One RCT of 130 female adolescents with primary dysmenorrhea showed that the patients who drank rose tea had less menstrual pain and anxiety as compared with control group.³¹ In recent years, some clinical controlled trials, in which the efficacy of Chinese herbal medicine and western medicine was compared, were conducted in China. The summary of these controlled trials was shown in table 1. In two of these studies, the herbal group was given with the basic herbal formula with modification according to the patient's patterns. In the other two, the treatment group was treated with a fixed herbal formula. In all these studies, the improvement rate is higher than 90% and superior to western medicine (analgesics) group.^{30,32-34}

C. Other therapies In addition to acupuncture and herbal medicine, other TCM therapies are also used for dysmenorrhea in the clinical setting. In the following paragraphs, the recent clinical controlled studies on these treatments will be reviewed.

Moxibustion This is a special TCM therapy by applying heat by burning specific herbs on certain acupuncture points to warm up meridians, expel the cold and induce the smooth flow of Qi and blood. In a controlled trial involving 40 dysmenorrheal patients with deficiency pattern, moxibustion was randomly given on either LU7 (lieque) or Ren 4 (guanyuan). The numerical pain scale significantly improved in both groups ($p < 0.05$ in both). But, there was no discernable difference in the improvement rate between these two groups.³⁵

Auricular point pressing There are many acupuncture points on both ears. According to the theory, each point is correspondent to a specific organ or system. By massage or press on these points, certain organs or systems can be stimulated. To compare the efficacy of acupuncture and auricular point pressing, a clinical controlled trial for dysmenorrhea divided the participants into acupuncture group ($n=50$) and auricular point pressing group ($n=50$) by taping/pressing the seeds of *Vaccariae Segetalis* (wang bu liu xing) on the auricular points. The acupuncture group was treated with acupuncture on Ren4 (guanyuan), ST29 (guilai), and SP6 (sanyinjiao) plus other acupuncture points based on the patterns. The auricular points including endocrine, uterus, shenmen, brain, liver, spleen, kidney, etc. were used in the auricular point pressing group. Improvement was observed in both groups, but no difference in improvement rate was found between both groups (92% and 86% respectively; $p > 0.05$)³⁶ In another RCT comparing the auricular point pressing to moxibustion, the participants either received the ear acupuncture point tapping/pressing on shenmen, endocrine and other points, or moxibustion on bilateral UB32 (ciliao). The results showed the auricular pressing group had an effective rate of 90%, which was as effective as the moxibustion group.³⁷

Foot soaking in herbal decoction Foot soaking in herbal decoction has become increasingly popular in recent years in the practice of Chinese medicine. Zhang reported foot soaking in herbal decoction with the ingredients of *Radix Angelicae Sinensis* (dang gui), *Radix Lateralis Aconiti Carmichaeli Praeparata* (fu zi), *Fructus Foeniculi Vulgaris* (xiao hui xiang), *Fructus Evodiae Rutaecarpae* (wu zhu yu), *Pericarpium Zanthoxyli Bungeani* (chuan jiao), *Herba cum Radice Asari* (xi xin) and others was more effective than ingestion of herbal pills "Drive Out Blood Stasis in the Lower Abdomen Pills" (shao fu zhu yu wan) with a response rate 97.57% versus 88.24% ($p < 0.05$) in primary dysmenorrheal patients ($n=82$).³⁸

Tui-na massage In a RCT, tui-na massage was applied to 62 patients with primary dysmenorrhea on back-shu points, lower back, "Penetrating vessel" (ren mai), lower abdominal points and ST 36 (zusanli), SP 6 (sanyinjiao), and SP 10 (xuehai). The controlled group (N=31) was treated with "qu tong pian" (an analgesics) three days before the period. The result showed that the tui-na massage group experienced more pain relief and was superior to the western medicine group ($p < 0.05$)³⁹

CONCLUSION AND DISCUSSION

In this review, most controlled clinical studies involving acupuncture, herbal treatment, or other TCM therapies showed promising results. These studies demonstrated that acupuncture or herbal therapy is more effective than the control or placebo/sham group. Hence, acupuncture or herbal medicine is a valuable alternative treatment for this common gynecological disorder. The beneficial effects of acupuncture on dysmenorrhea may be due to central analgesic effect or neuro-humoral transmission. There was only one study investigating the mechanism of action of an herbal formula. In this in vitro study, the formula "Warm Menses Decoction" (wen jing tang) was found to be through the antagonism of both $PGF2\alpha$ and acetylcholine. In another clinical trial, a herbal medicine "Toki-shakuyaku-san" (dang gui shao yao san) even showed post-treatment effect after discontinuation of treatment. The studies of other TCM therapies for dysmenorrhea showed similar response rates to acupuncture or herbal formula. However, the number of these studies was limited and most of them were lacking good designs. For example, many studies were non-blinding, lacked demographic data comparison between the treatment and controlled/ placebo groups, limited -scaled, lacked adverse events report and no long-term follow-up. Hence, comprehensive and well-designed clinical trials in acupuncture, herbal medicine or other TCM therapies are needed to establish a firm ground for their clinical efficacy.

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Appendix: Ingredients of the herbal formulas (in alphabetical order)

"Clear Heat Regulate Blood Decoction" (qing re tiao xue tang)

- Cortex Moutan Radicis (mu dan pi)
- Rhizoma Coptidis (huang lian)
- Radix Rehmanniae Glutinosae (sheng di huang)
- Radix Angelicae Sinensis (dang gui)
- Radix Paeoniae Lactiflorae (bai shao)
- Rhizoma Cnidii (chuan xiong)
- Flos Carthami Tinctorii (hong hua)

Semen Persicae (tao ren)
 Rhizoma Curcumae Ezhu (e zhu)
 Rhizoma Cyperi Rotundi (xiang fu)
 Rhizoma Corydalis Yanhusuo (yen hu suo)

"Drive Out Blood Stasis below the Diaphragm Decoction" (ge xia zhu yu tang)

Excrementum Trogopteri seu Pteromi (wu ling zhi)
 Radix Angelicae Sinensis (dang gui)
 Radix Ligustici Chuanxiong (chuan xiong)
 Semen Persicae (tao ren)
 Cortex Moutan Radicis (mu dan pi)
 Radix Paeoniae Rubrae (chi shao)
 Radix Linderae Strychnifoliae (wu yao)
 Rhizoma Corydalis Yanhusuo (yan hu suo)
 Radix Glycyrrhizae Uralensis (gan cao)
 Rhizoma Cyperi Rotundi (xiang fu)
 Flos Carthami Tinctorii (hong hua)
 Fructus Citri seu Ponciri (zhi ke)

"Drive Out Blood Stasis in the Lower Abdomen Pills" (shao fu zhu yu tang)

Fructus Foeniculi Vulgaris (xiao hui xiang)
 Rhizoma Zingiberis Officinalis (gan jiang)
 Rhizoma Corydalis Yanhusuo (yan hu suo)
 Radix Angelicae Sinensis (dang gui)
 Radix Ligustici Chuanxiong (chuan xiong)
 Myrrha (mo yao)
 Cortex Cinnamomi Loureiroi (guan gui)
 Radix Paeoniae Rubrae (chi shao)
 Pollen Typhae (pu huang)
 Excrementum Trogopteri seu Pteromi (wu ling zhi)

"Pacifying Painful Menstruation" (tong jing ning)

Radix Lateralis Aconiti Carmichaeli Preparata (zhi fu zi)
 Rhizoma Zingiberis Officinalis (gan jiang)
 Radix Glycyrrhizae Uralensis (gan cao)
 Fructus Piperis Longi (bi ba)
 Rhizoma Corydalis Yanhusuo (yan hu suo)
 Excrementum Trogopteri seu Pteromi (wu ling zhi)
 Radix Linderae Strychnifoliae (wu yao)

Fructus Roeniculi Vulgaris (xiao hui xiong)

Semen Sinapis Albae (bai jie zi)

"Rambling Powder" (xiao yao san)

Radix Bupleuri (chai hu)

Radix Angelicae Sinensis (dang gui)

Radix Paeoniae Lactiflorae (bai shao)

Rhizoma Atractylodis Macrocephalae (bai zhu)

Sclerotium Poriae cocos (fu ling)

Honey fried Radix Glycyrrhizae Uralensis (zhi gan cao)

Roasted Rhizoma Zingiberis Officinalis Recens (wei jiang)

Herba Menthae Haplocalycis (bo he)

"Regulate Liver Decoction" (tiao gan tang)

Radix Angelicae Sinensis (dang gui)

Radix Paeoniae Lactiflorae (bai shao)

Fructus Corni Officinalis (shan zhu yu)

Radix Morindae Officinalis (ba ji tian)

Radix Dioscoreae Oppositae (shan yao)

Gelatinum Corii Asini (e jiao)

Radix Glycyrrhizae Uralensis (gan cao)

"Sage-like Healing Decoction" (sheng yu tang)

Radix Rehmanniae Glutinosae (sheng di huang)

Radix Rehmanniae Glutinosae Conquिताe (shu di huang)

Radix Ligustici Chuanxiong (chuan xiong)

Radix Ginseng (ren shen)

Radix Angelicae Sinensis (dang gui)

Radix Astragali Membranacei (huang qi)

"Toki-shakuyahu-san" (dang gui shao yao san)

Radix Angelicae Sinensis (dang gui)

Radix Paeoniae Lactiflorae (bai shao)

Rhizoma Atractylodis lanceae (bai zhu)

Rhizoma Alismatis (ze xie)

Rhizoma Cnidii (chuan xiong)

"Warm Menses Decoction" (wen jing tang)

Fructus Evodiae Rutaecarpae (wu zhu yu)

Ramulus cinnamomi cassiae (gui zhi)

Radix Angelicae Sinensis (dang gui)

Radix Ligustici Chuanxiong (chuan xiong)
 Radix Paeoniae (shao yao)
 Gelatinum Corii Asini (e jiao)
 Tuber Ophiopogonis Japonici (mai men dong)
 Cortex Moutan Radicis (mu dan pi)
 Radix Ginseng (ren shen)
 Radix Glycyrrhizae Uralensis (gan cao)
 Rhizoma Zingiberis Officinalis Recens (sheng jiang)
 Rhizoma Pinelliae Ternatae (ban xia)

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A NARRATIVE LITERATURE REVIEW ON THE WESTERN MEDICINE AND TCM APPROACHES TO DYSMENORRHEA

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痛經是一種常見的婦科疾病，也是青春期少女以及年輕婦女缺課或請假常見原因。這也同時造成這些婦女的生活品質及活動力降低。目前，非類固醇消炎藥是西藥中治療痛經的第一線藥物。口服避孕藥則是另一種選擇。然而，在最近的一些臨床研究報告中，中醫療法，包括針灸，在痛經的治療上，也都取得不錯的療效。在這篇文章中，將會從中西醫的觀點，介紹痛經的病因病機，以及診斷治療。同時，也對目前在痛經的治療機轉的基礎研究以及其療效的臨床研究，作詳細的回顧。

Key words: dysmenorrhea, acupuncture, moxibustion, Traditional Chinese Medicine.