

SOUTH BAYLO UNIVERSITY

**RESULTS OF FIVE CASES ON MENOPAUSE SYMPTOMS
TREATMENT WITH CHAI HU JIA SI WU TANG (柴胡加四物湯)**

by

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**A RESEARCH PROJECT SUBMITTED
IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE**

Doctor of Acupuncture and Oriental Medicine

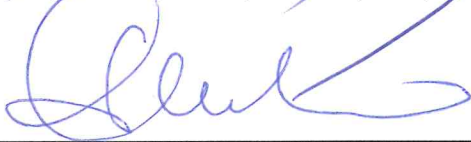
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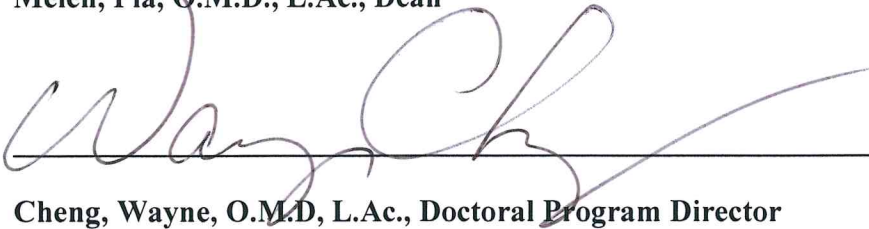
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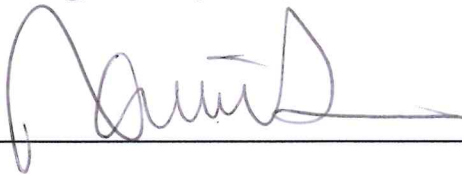
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SOUTH BAYLO UNIVERISTY AT ANAHEIM, 2016

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ABSTRACT

Objects:

Most of women go through painful menopause period. It is very rare for women to not have any discomfort symptoms during this period. Unlike before, today's medical advancement offers to women many types of conventional medicine treatment include hormone therapy to relieve the symptoms. However, many study shows that these hormone therapy can cause severe side effects, such as cancer and heart disease. On the other hand, treatments through Oriental Medicine, such as acupuncture or herbal medicine to relieve these symptoms are the most natural way and proven to be effective. However, there still needs to be more clinical research. Therefore, the purpose of this study is to evaluate the effects of Chai Hu Jia Si Wu Tang on climacteric symptoms.

Methods:

The 5 case was selected from patients with climacteric symptoms who visited IC Oriental Clinic, Orange, CA from January 2016 to June 2016 that wanted to get Oriental Medicine treatment for their climacteric symptoms. These 5 patients was treated with Chai Hu Jia

Si Wu Tang for 3 months and evaluated every month with Menopause Rating Scale (MRS).

Results:

After 3 month of herbal treatment, the MRS total score dropped from an average 27.2 to an average 4.4.

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I. INTRODUCTION

Today's medical advancements and higher quality of living lead to a longer life span, especially a woman's life span which is longer than a man's⁽¹⁾. A woman lives one third of their life as a middle aged woman. "Middle age" is the period between adulthood and old age, which is defined from 40 to 65 years old. In the reproductive cycle this period is considered as a climacterium period, or better known as "menopause". This period of a woman's life is very important because maintaining good health in this period of their life affects their health as a woman ages.⁽²⁾

The climacterium period is where a woman's reproductive ability begins to decrease and eventually stops completely⁽³⁾. At this stage women can experience unpleasant symptoms, which include but are not limited to: hot flashes, irritability, night sweats, dry eyes, mood swings, burning tongue, anxiety, tingling extremities, depression, vaginal dryness, and a decrease in sexual desire. These are called menopause symptoms.⁽⁴⁾⁽⁵⁾

The most common treatment in the United States for these symptoms is hormone replacement therapy (HRT)⁽⁶⁾. However, due to the side effects of this treatment, which includes but is not limited to increase in the risk of heart disease⁽⁷⁾, breast cancer⁽⁸⁾, blood clots, and stroke⁽⁹⁾, some women are hesitant to take HRT.⁽¹⁰⁾

On the other hand, treatments through Oriental Medicine to relieve these symptoms are proven to be effective and have less serious side effects⁽¹¹⁾. However, there still needs to be more clinical research on Oriental Medicine treatment. Unlike conventional medicine, there are multiple ways to treat same symptoms in Oriental

Medicine.⁽¹²⁾

1. Etiology of Menopause in Conventional Medicine

Etiology of menopause can be divided into 4 major cause⁽¹³⁾; natural decline of reproductive hormones, hysterectomy, chemotherapy and radiation therapy, primary ovarian insufficiency. As women approach late 30s, ovaries start making less estrogen and progesterone which regulate menstruation⁽¹⁴⁾. In women's 40s, menstrual periods may become longer or shorter, heavier or lighter, and more or less frequent, until eventually no more period occurs.⁽¹⁵⁾

A hysterectomy that removes uterus but not the ovaries (partial hysterectomy) usually does not cause immediate menopause⁽¹⁶⁾. Although women no longer have periods, the ovaries still release eggs and produce estrogen and progesterone. But surgery that removes both uterus and ovaries (total hysterectomy and bilateral oophorectomy) does cause menopause⁽¹⁷⁾, without any transitional phase. The periods stop immediately, and women likely to have a hot flashes and other menopausal signs and symptoms⁽¹⁸⁾, which can be severe, as these hormone changes occur abruptly rather than over several years.⁽¹⁹⁾

A cancer therapy, such as chemotherapy and radiation therapy can induce menopause, causing symptoms as hot flashes during or shortly after the course of treatment⁽²⁰⁾. The halt to menstruation (and fertility) is not always permanent following chemotherapy, so birth control measures may still be desired.⁽²¹⁾

Only 1 percent of women experience menopause before age 40 (premature menopause)⁽²²⁾. Menopause may result from primary ovarian insufficiency, meaning when the ovaries fail to produce normal levels of reproductive hormones, stemming from

genetic factors or autoimmune disease. But often no cause can be found.⁽²³⁾

2. Treatment for Menopause in Conventional Medicine

Menopause itself does not require medical treatment. Instead, treatments focus on relieving sign and symptoms and preventing or managing chronic conditions that may occur with aging.⁽²⁴⁾

Most popular treatments that are recommended by Mayo Clinic include hormone therapy, vaginal estrogen, low-dose antidepressants and Gabapentin (Neurontin)⁽²⁵⁾. Hormone therapy is by far, the most effective treatment option for relieving menopausal hot flashes. According to Mayo Clinic, doctor will control the dose of estrogen depending on the personal and family medical history⁽²⁶⁾. If the patient still have the uterus, patient will need progestin in addition to estrogen⁽²⁷⁾. Vaginal estrogen is to relieve vaginal dryness, discomfort with intercourse and some urinary symptoms. Estrogen can be administered directly to the vagina using a vaginal cream, tablet or ring⁽²⁸⁾. This treatment releases just a small amount of estrogen, which is absorbed by the vaginal tissues. Low-dose antidepressants that are related to the class of drugs called selective serotonin reuptake inhibitors (SSRIs) may decrease menopausal hot flashes⁽²⁹⁾. A low-dose antidepressant for management of hot flashes may be useful for women⁽³⁰⁾ who can't take estrogen for health reasons or for women who need an antidepressant for a mood disorder⁽³¹⁾. Even though, Gabapentin is approved to treat seizures, but it has also been shown to help reduce hot flashes⁽³²⁾. According to Mayo Clinic, this drug is useful in women who can't use estrogen therapy and in those who also have migraines.

Table 1. Popular Conventional Medicine Treatments

Therapy Name	Relieve symptoms of
Hormone Therapy	Reliving menopausal hot flashes
Vaginal estrogen	Vaginal dryness, discomfort with intercourse, some urinary symptoms
Low-dose antidepressants	Menopausal hot flashes, mood swing
Gabapentin (Neurontin)	Menopausal hot flashes, migraines

This conventional medicine can only provide temporary symptoms relief⁽³³⁾. However, these conventional medicine treatments often bring severe side effects⁽³⁴⁾. Because of the side effects that conventional medicine can bring, more and more women are looking for a natural way to relieve their symptoms.⁽³⁵⁾

3. Etiology of menopause in Oriental Medicine

There is no vocabulary “menopause” in ancient Oriental Medicine Text⁽³⁶⁾. However, one of the respected Oriental Medicine books, *Huang Di Nei Jing* (黃帝內經), mentions about women’s change of body at age of 49. It said women at age around 49, balance with kidney qi(腎氣), Tian Qui(天癸) and Chong, Ren Mai(衝任脈) starts to decline. Therefore, essence blood (精血) will be lacking due to reduced Kidney Qi(腎氣), also due to decline of Qi of Yin and Yang, body cannot nourish(溫養) the Jang Fu(臟腑). This is the cause of menopause symptoms in Oriental Medicine

perspective. Basic etiological cause of menopause is due to Kidney deficiency⁽³⁷⁾. Kidney fails to balance Yin and Yang, and tend to go Yin deficiency(陰虛), Yang deficiency(陽虛) or deficiency of Yin and Yang(陰陽兩虛)⁽³⁸⁾. These could affects functionality of heart, liver, spleen⁽³⁹⁾. Therefore, cause of menopause also can be seen as kidney Yin deficiency(腎陰虛), kidney Yang deficiency(腎陽虛), kidney Yin Yang deficiency(腎陰兩虛), heart and kidney disharmony(心腎不交), liver stagnation(肝鬱) and deficiency of heart and spleen(心脾兩虛)⁽⁴⁰⁾.

4. Treatment for Menopause in Oriental Medicine

The common formula for kidney Yin deficiency(腎陰虛) is Zhi Bai Di Huang Wan (知柏地黃丸), kidney Yang deficiency(腎陽虛) is You Gui Wan (右歸丸), kidney Yin Yang deficiency(腎陰兩虛) is Zuo Gui Yin He Er Xian Tang (左歸飲合二仙湯), heart and kidney disharmony(心腎不交) is Gan Mai Da Zao Tang He Chai Hu Jia Long Gu Mu Li Tang (甘麥大棗湯合桂枝加龍骨牡蠣湯), liver stagnation(肝鬱) is Xiao Yao San (逍遙散) and deficiency of heart and spleen(心脾兩虛) is Gui Pi Tang (歸脾湯)⁽⁴¹⁾. According to the researches done on formulas ; Zhi Bai Di Huang Wan (知柏地黃丸),

You Gui Wan (右歸丸), Zuo Gui Yin He Er Xian Tang (左歸飲合二仙湯), Gan Mai Da Zao Tang He Chai Hu Jia Long Gu Mu Li Tang (甘麥大棗湯合桂枝加龍骨牡蠣湯), Xiao Yao San (逍遙散), Gui Pi Tang (歸脾湯), showed an average of each formula's improvements of 82.6% for psychological symptoms, 68% for somato-vegetative symptoms and 25.5% for urogenital symptoms.^(37,38,39,40,42,43,44,45,46,47,48,49,50,51,52)

Table 2. Result of treatment with formula

Formula	Symptoms	Improvement (%)
Zhi Bai Di Huang Wan (知柏地黃丸),	Psychological symptoms	70%
	Somato-vegetative symptoms	57%
	Urogenital symptoms	28%
You Gui Wan (右歸丸)	Psychological symptoms	64%
	Somato-vegetative symptoms	58%
	Urogenital symptoms	21%
Zuo Gui Yin Hap Er Xian Tang (左歸飲合二仙湯)	Psychological symptoms	58%
	Somato-vegetative symptoms	74%
	Urogenital symptoms	23%
Gan Mai Da Zao Tang Hap Chai Hu Jia Long Gu Mu Li Tang (甘麥大棗湯合桂枝加龍骨牡蠣湯)	Psychological symptoms	67%
	Somato - vegetative symptoms	76%
	Urogenital symptoms	21%
Xiao Yao San (逍遙散)	Psychological symptoms	82%
	Somato-vegetative symptoms	72%

	Urogenital symptoms	29%
Gui Pi Tang (歸脾湯)	Psychological symptoms	79%
	Somato-vegetative symptoms	65%
	Urogenital symptoms	31%

Because menopause symptoms, that are usually more than one symptom, are usually complex combination of fluctuation of hormone level, environmental and psychological factors.⁽⁵³⁾ Therefore, it is very complicate to use single formula to cover all the menopause symptoms⁽⁵⁴⁾. However, acute symptoms which include hot flashes, sweating, palpitation, anxiety and insomnia⁽⁵⁵⁾ can be seen as a result of kidney yin deficiency, which cannot control deficiency fire that caused of liver stagnation. Therefore, Chai Hu Jia Si Wu Tang (柴胡加四物湯) was used to cover acute symptoms.⁽⁴¹⁾

II. MATERIALS & METHODS

Even though, many Korean doctors and researcher used Kupperman's Index to determine severity of menopause symptoms.⁽⁵⁶⁾ However, many recent researches that are done my united states are more frequently being use Menopause Rating Scale (MRS) for determination of patient's condition.⁽⁵⁷⁾ Therefore, MRS was used in this study. 5 randomly selective women who had menopause symptoms took MRS survey before the treatment starts. Each month when the patients come in to the clinic to evaluate, they would do same MRS survey again to get a score. On final treatment, another MRS was taken and scored to compare the score. MRS is divided into 3 major symptoms, which includes psychological, somato-vegetative, and urogenital symptoms.⁽⁵⁷⁾

Table 3. Category & Symptoms in MRS

Category	Symptoms
Psychological symptoms	depressed, irritable, anxious, exhausted
Somato-vegetative symptoms	sweating/flush, cardiac complaints, sleeping disorder, Joint & Muscle Complaints
Urogenital symptoms	sexual problems, urinary complaints, vaginal dryness

During the study, these patients only took herbal medicine and did not get any other treatment including menopausal dietary supplements, acupuncture treatment, convention medicine treatment.

20 times of 1 dose of Chai Hu Jia Si Wu Tang was used to make 30 packs of herbal decoction. 1 pack contains 140cc of herbal decoction and patient was given 30

packs and directed to drink 2 packs per day for 15 days. Then the patient waits about ten days after finishing the 30 packs and starts another 30 packs on the same regimen. The patient completes this process again and ends treatment after three months on the herbal decoction regimen.

1. Participants:

5 patients were randomly selected between age 48 to 52 years old who have visited IC Oriental Clinic (Orange, CA) from Jan 2016 to June 2016 for menopause symptoms such as anxiety, palpitation, fatigue, dizziness, sweating, heat sensation on upper body, hyperemia, vaginal dryness, shoulder pain, insomnia and headache (不安感, 心悸, 怔忡, 疲勞感, 眩暈, 汗出, 上熱感, 眼球充血, 脛乾燥, 肩痛, 頭痛, 不眠症, 無氣力).

Participants are informed that due to the study of this research; they are not allowed to get any other treatment from conventional treatment such as a hormone therapy and acupuncture treatment.

Table 4. Basic information of Participants

	Case #1	Case #2	Case #3	Case #4	Case #5
Race	Asian	Asian	Asian	Asian	Asian
Age	50	48	51	49	48
Sx Occured	May. 2015	Nov. 2015	Oct. 2014	Jan. 2016	Jul. 2015
CSD*	Jan. 2016	Jan. 2016	Feb. 2016	Mar. 2016	Mar. 2016
GTPAL*	2-2-0-2-2	0-0-0-0-0	2-2-0-0-2	1-1-0-1-1	3-3-0-2-3
MRS initial Score	30	27	28	26	25

*CSD- case start date

*GTPAL – G-Gravida, T- Term birth, P- Preterm birth, A- Abortions, L- Living children

2. Treatment

A. Herbal Treatment

Chai Hu Jia Si Wu Tang (柴胡加四物湯) (Table 6)

This formula is from a “book of excellent clinical formula”(優秀經驗方集) that was written and published by Korean Institute of Oriental Medicine in 2004. According to the book this formula showed great effectiveness on patients with kidney yin deficiency and liver stagnation and following menopause symptoms includes but not is limited to sweating(自汗), hot flash with thirst (面紅口渴), dizziness (頭暈目眩), palpitation (心悸), sudden changes of feeling cold and hot (寒熱往來).⁽⁵⁸⁾

Table 5. The composition of Chai Hu Jia Si Wu Tang (柴胡加四物湯) ⁽⁵⁸⁾

Herbal Name	(Chinese)	Scientific Name	Characteristic	1 x Dose (g)
Chai Hu	柴胡	Bupleuri Radix	Cool	7.5
Sheng Di Huang	生地黃	Zingiberis Rhizoma Recens	Very cold	
Fu Ling	茯苓	Poria	Neutral	4.5
Gui Zhi	桂枝	Cinnamomi Ramulus	Warm	
Huang Qin	黃芩	Scutellariae Radix	Very Cold	3.75
Dang Gui	當歸	Angelica Acutiloba Kitag	Warm	

Long Gu	龍骨	Fossilia Osis Mastodi	Neutral	
Mu Li	牡蠣	Ostreae Concha	Cool	
Chi Shao	赤芍藥	Paeonia lactiflora	Cold	
Chuan Xiong	川芎	Ligusticum Franchet	Warm	
Da Zao	大棗	Jujubae Fructus	Neutral	2 pc
Sheng Jiang	生薑	Zingiberis Rhizoma Recens	Warm	1.9
Da Huang	大黃	Rhei Radix Et Rhizoma	Very Cold	
Ban Xia	半夏	Pinelliae Rhizoma	Warm	
Gan Chao	甘草	Glycyrrhizae Radix	Neutral	
Reh Shen	人蔘	Ginseng Radix	Slightly warm	

According to the book “Herbology” that was published by National Korean Medical Schools Textbook Publisher, on February 2011, stating the herb action as below

Table 6. Composition of formula and herb action ⁽⁵⁹⁾

Herb	Herb Action
Chai Hu	Lowers Fever, relieves liver qi constraint, raises the Yang Qi in cases of middle jiao deficiency.
Sheng Di Huang	Clears heat and cools the blood, nourishes the yin and increases fluids, clear heart fire
Fu Ling	Promotes urination, tonifies spleen qi
Gui Zhi	Unblocks the yang qi of the chest, promotes blood circulation

Huang Qin	Clear heat and fire, calms liver yang rising
Dang Gui	Tonifies blood, moves the blood
Long Gu	Settles anxiety and calms the spirit, calms the liver yang rising
Mu Li	Heavily settles and calms the spirit
Chi Shao	Clears heat and cools the blood, invigorates blood, remove stagnation, clears liver fire
Chuan Xiong	Invigorates blood and moves Qi, relieves pain
Da Huang	Drains heat, reduces blood level heat, invigorates the blood and removes stagnation, clears blood level heat
Ban Xia	Descends rebellious stomach qi and harmonizes the stomach
Gan Cao	Harmonizes formulas and moderates other herbs
Ren Shen	Calms the spirit and clears the mind, tonifies Qi and yang and benefits the kidneys.

3. Determination

Each participant was evaluated each month with Menopause Rating Scale (MRS) score to determine any symptomatic changes while the treatment is processing. MRS contains 3 categories of rating. Therefore, each score and total score was recorded each MRS survey. After a 3month of herbal medicine treatment, comparison of score will show the effectiveness on this treatment.

III. RESULTS

<Case #1>

1. Race / Age : Asian / 50
2. Height / Weight: 5' 0" / 120 lbs.
3. Occupation : housewife
4. Case Start Date : January 5, 2016
5. Chief Complaints: Anxiety, palpitation, fatigue, dizziness, sweat, heat sensation on upper torso, red eyes, vaginal dryness.
6. Oriental Medicine diagnosis : Kidney deficiency
7. Symptom occurred : May 2015
8. GTPAL = 2-2-0-3-2
9. Menstrual History
 - a. Menarche : 14 years old
 - b. LMP : January 2015
 - c. Cycle interval : 25 days
 - d. Flow length: usually 7 days, but has been reduced to 5 days since 3 year ago
 - e. Amount : moderate, but got lighter since 3 years ago
 - f. Color : light red
 - g. Clots: very little or none.
 - h. Vaginal discharge : little of white
 - i. Cramping : none or very mild
10. Medical history : surgery to repair both knee cartilage, December 2015
11. Family history : Mother – Heart disease , Diabetes

12. Current medical condition :

This participant has sensitive personality and never had any health issue with uterus, breast and thyroid. However, 3 years ago, she noticed decrease in amount of menstrual bleeding, and started hormone replacement therapy from local gynecologist. She was on hormone replacement therapy till January, 2015.

Participant's period stopped as she stopped the hormone replacement therapy.

13. General questions

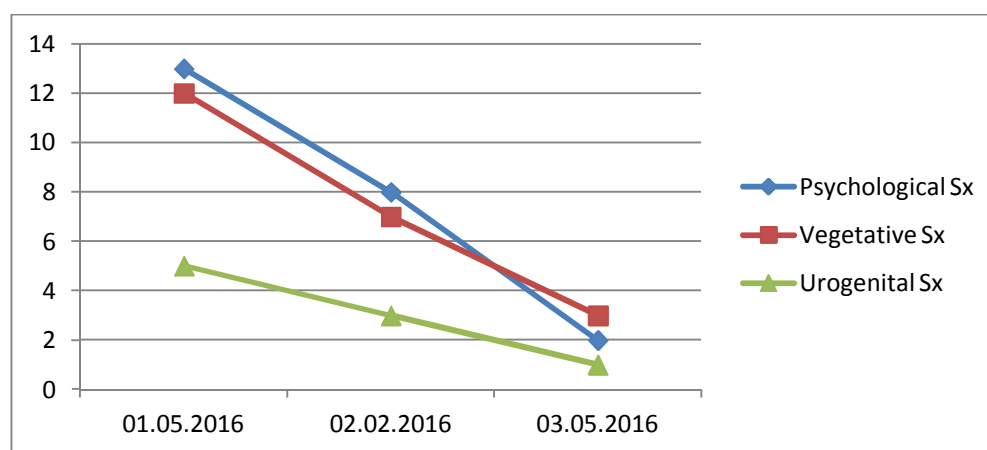
- a. Appetite : normal
- b. Digestion : normal, occupational heartburn
- c. Thirst: does not feel thirst, but dry mouth
- d. Defecation: recently constipated. Usually normal
- e. Urination : normal
- f. Fever & Chill : used to feel cold all the time, but now she feels hot all the time
- g. Perspiration : used to have no sweat, but now experience sudden sweating
- h. Hand & Feet : cold hand & feet
- i. Upper Jiao : headache, dizziness got worse over the 3 years
- j. Middle Jiao : stuffy chest, does not like tight shirts
- k. Sleeping : used to be good, but after stop doing HRT, patient is suffering from insomnia
- l. Joint : shoulder, neck pain
- m. Tongue : Pink tongue body, dry tongue coating
- n. Pulse : weak

14. Treatment

20 times of 1 dose of Chai Hu Jia Si Wu Tang was used to make 30 packs of herbal decoction. And patient was given 30 packs and directed to drink 2 packs per day for 15 days. Then the patient waits about ten days after finishing the 30 packs and starts another 30 packs on the same regimen. The patient completes this process again and ends treatment after three months on the herbal tea regimen.

15. Clinical Result

Figure 1. Case #1 MRS score



Age	Height/Weight	Occupation	Initial MRS score	Final MRS score
50	5'0" / 120 lbs	Housewife	30	7

January 5, 2016, patient was suffering from psychological symptoms such as anxiety, fatigue, vegetative symptoms such as palpitation, sweat, heat sensation on upper torso, urogenital symptom such as a vaginal dryness and whole-body symptom such as headache, dizziness. Her initial MRS (menopause rating scale) score was 30, but after a month of herbal treatment her score dropped to 18, and

then in the 3rd month dropped to 7.

<Case #2>

1. Race / Age : Asian / 48
2. Height / Weight: 5' 0" / 98 lbs.
3. Occupation : CPA
4. Case Start Date : January 20 2016
5. Chief Complaints: Anxiety, palpitation, fatigue , dizziness, sweat, heat sensation
on upper torso, shoulder pain
6. Oriental Medicine diagnosis : Kidney deficiency
7. Symptom occurred : November 2015
8. GTPAL = 0-0-0-0-0
9. Menstrual History
 - a. Menarche : 15 years old
 - b. LMP : April 2014
 - c. Cycle interval : 28days \pm 3days (after fibroid removal surgery 2002)
 - d. Flow length: used to be 7 days, but it got 15days due to fibroid, but reduced to
3 days after the surgery.
 - e. Amount: used to be moderate, but got heavy due to fibroid, but reduced after
the surgery.
 - f. Color : light red
 - g. Clots: very little
 - h. Vaginal discharge : little of white
 - i. Cramping : 1~2 days before and 2~3 after, severe

10. Medical history : Fibroid removal, June 2002

11. Family history : Father – stomach cancer Mother – Heart disease

12. Current medical condition :

This participant has sensitive personality. She complains that she gets lots of stress from work and social life. She was diagnosed with a fibroid on the uterus (25mm) in 2001, but had to get a removal surgery in 2002 due to growing in size of a fibroid.

Her period has stopped 2 years ago, participant came in to the clinics to get treatment for her chief complaints from above.

13. General questions

- a. Appetite : normal
- b. Digestion: dyspepsia since menopause
- c. Thirst: thirst since menopause
- d. Defecation : constipated
- e. Urination : normal
- f. Fever & Chill : used to feel chill but not always feels hot
- g. Perspiration: recently sweat a lot
- h. Hand & Feet: cold hand & feet
- i. Upper Jiao : dizziness
- j. Middle Jiao: palpitation, stuffy chest, cannot wear turtle neck or tight shirts
- k. Sleeping : normal
- l. Joint : shoulder pain
- m. Tongue : red tongue, dry tongue coating

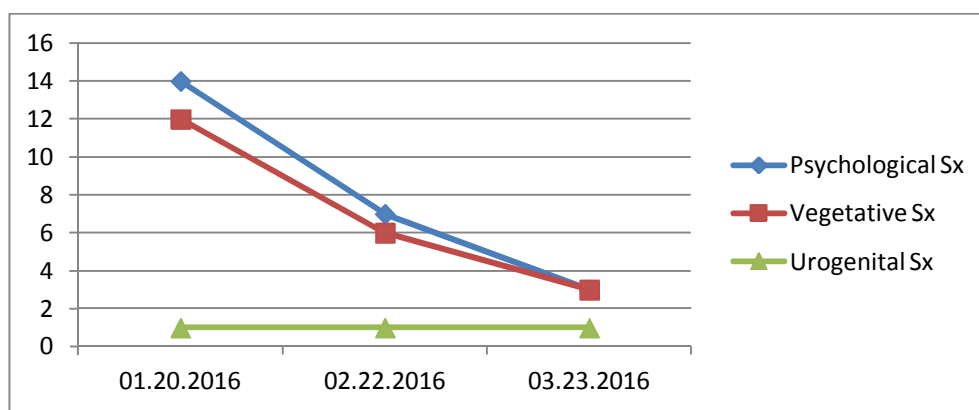
n. Pulse : weak

14. Treatment

20 times of 1 dose of Chai Hu Jia Si Wu Tang was used to make 30 packs of herbal decoction. And patient was given 30 packs and directed to drink 2 packs per day for 15 days. Then the patient waits about ten days after finishing the 30 packs and starts another 30 packs on the same regimen. The patient completes this process again and ends treatment after three months on the herbal tea regimen.

15. Clinical Result

Figure 2. Case #2 MRS score



Age	Height/Weight	Occupation	Initial MRS score	Final MRS score
48	5'0" / 98 lbs	CPA	27	7

January 20, 2016, patient was suffering from psychological symptoms such as anxiety, fatigue, vegetative symptoms such as palpitation, sweat, heat sensation on upper torso, and whole-body symptom such as dizziness and shoulder pain.

Her initial MRS (menopause rating scale) score was 27, but after a month of herbal treatment her score dropped to 14, and then in the 3rd month dropped to 7.

<Case #3>

1. Race / Age : Asian / 51
2. Height / Weight: 5'1" / 140 lbs.
3. Occupation : small business owner
4. Case Start Date : February 10 2016
5. Chief Complaints: Palpitation, insomnia, fatigue, headache, dizziness, sweat, heat sensation on upper torso.
6. Oriental Medicine diagnosis : Kidney deficiency
7. Symptom occurred : October 2014
8. GTPAL = 2-2-0-0-2
9. Menstrual History
 - a. Menarche : 15 years old
 - b. LMP : May 2014
 - c. Cycle interval : 26±3 days
 - d. Flow length: usually 7 days, but has been reduced to 3~4 days since Oct 2014
 - e. Amount : light
 - f. Color : used to be light red, but more darker red since Oct 2014
 - g. Clots: moderate
 - h. Vaginal discharge : yellow, white discharge
 - i. Cramping: usually none, but severe cramping once a year
10. Medical history: None.

11. Family history : Father – Heart disease , Diabetes

12. Current medical condition :

This participant has no history of abnormalities on uterus, breast, and thyroid. Period was starting to become not regular since October 2012, also participant started to have heat sensation on upper torso, sweat, palpitation. On February 2014, these symptoms become more severe, she was getting medical treatment from internal medicine, gynecologist, and psychiatrists, did not relieve the symptoms. May 2014, participant started hormone replacement therapy, but stopped a month after due to worry of side effects.

13. General questions

- a. Appetite : normal
- b. Digestion: dyspepsia, bloating since October 2014
- c. Thirst: likes to drink cold water since October 2014, occasional bitter taste
- d. Defecation : constipated
- e. Urination : normal, starting to have night urination since Oct 2014
- f. Fever & Chill : used to feel cold all the time, alternating chill and fever
- g. Perspiration : usually no sweat, but starting to sweat since October 2014
- h. Hand & Feet : cold hand & feet
- i. Upper Jiao : headache, dizziness
- j. Middle Jiao: severe palpitation at early evening, cannot wear turtle neck and tight shirts.
- k. Sleeping : recently cannot sleep well
- l. Joint : neck pain

m. Tongue : red tongue body, dry tongue coating

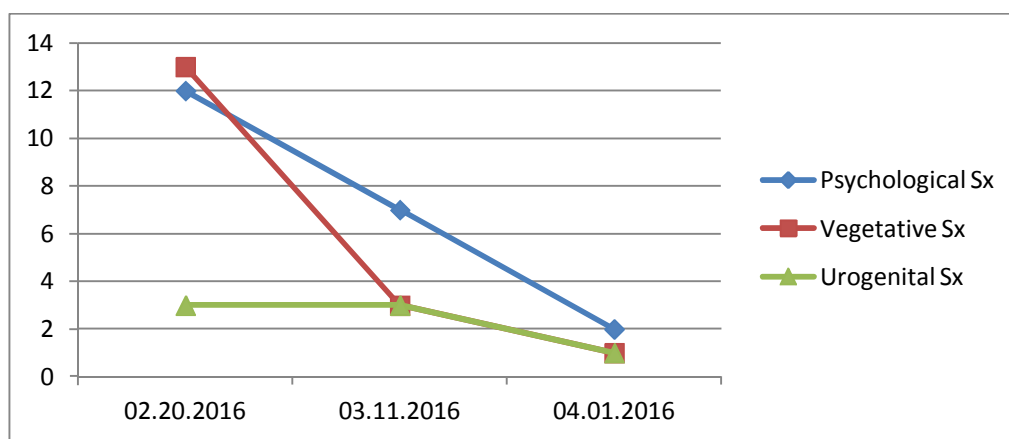
n. Pulse : weak

14. Treatment

20 times of 1 dose of Chai Hu Jia Si Wu Tang was used to make 30 packs of herbal decoction. And patient was given 30 packs and directed to drink 2 packs per day for 15 days. Then the patient waits about ten days after finishing the 30 packs and starts another 30 packs on the same regimen. The patient completes this process again and ends treatment after three months on the herbal tea regimen.

15. Clinical Result

Figure 3. Case #3 MRS score



Age	Height/Weight	Occupation	Initial MRS score	Final MRS score
51	5'1" / 1420 lbs	Small business owner	28	4

February 20, 2016, patient was suffering from psychological symptoms such as fatigue, vegetative symptoms such as palpitation, insomnia, sweat, heat sensation on upper torso, and whole-body symptom such as headache, dizziness. Her initial

MRS (menopause rating scale) score was 28, but after a month of herbal treatment her score dropped to 13, and then in the 3rd month dropped to 4.

<Case #4>

1. Race / Age : Asian / 49
2. Height / Weight: 4' 9" / 107 lbs.
3. Occupation : Social worker
4. Case Start Date : March 15 2016
5. Chief Complaints: palpitation, fatigue, dizziness, sweat, heat sensation on upper torso
6. Oriental Medicine diagnosis : Kidney deficiency
7. Symptom occurred : January 2015
8. GTPAL = 1-1-0-1-1
9. Menstrual History
 - a. Menarche : 13 years old
 - b. LMP : January 2015
 - c. Cycle interval : 28days
 - d. Flow length: 7 days
 - e. Amount : heavy
 - f. Color : light red
 - g. Clots: moderate to heavy
 - h. Vaginal discharge : minor white discharge
 - i. Cramping : severe on 2nd~ 4th day after period starts

10. Medical history : none

11. Family history : Mother – heart disease , breast cancer

12. Current medical condition :

After her LMP, participant started to have a symptoms, as symptoms gets worse mover time, she came in to the clinic to relieve the symptoms.

13. General questions

a. Appetite : normal

b. Digestion : occasional dyspepsia

c. Thirst: occasional dry mouth

d. Defecation : constipated

e. Urination : normal

f. Fever & Chill : used to be cold, but feels hot after menopause

g. Perspiration : on face and back of neck

h. Hand & Feet : cold hand & Feet

i. Upper Jiao : dizziness, headache

j. Middle Jiao : stuffy chest, anxiety

k. Sleeping : normal

l. Joint : shoulder, knee pain, neck pain

m. Tongue : red tongue body, dry tongue

n. Pulse : weak

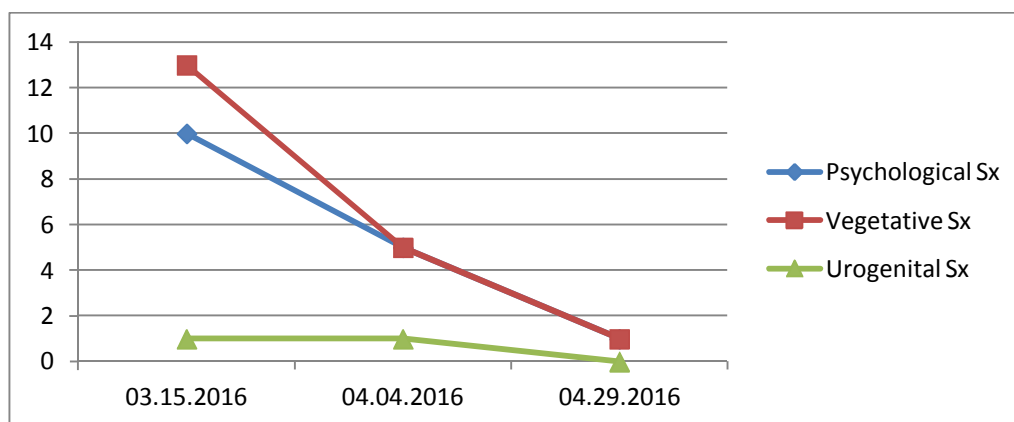
14. Treatment

20 times of 1 dose of Chai Hu Jia Si Wu Tang was used to make 30 packs of herbal decoction. And patient was given 30 packs and directed to drink 2 packs

per day for 15 days. Then the patient waits about ten days after finishing the 30 packs and starts another 30 packs on the same regimen. The patient completes this process again and ends treatment after three months on the herbal tea regimen.

15. Clinical Result

Figure 4. Case #4 MRS score



Age	Height/Weight	Occupation	Initial MRS score	Final MRS score
49	4'9" / 107 lbs	Social woker	26	2

March 15, 2016, patient was suffering from psychological symptoms such as fatigue, vegetative symptoms such as palpitation, sweat, heat sensation on upper torso, and whole-body symptom such as dizziness. Her initial MRS (menopause rating scale) score was 26, but after a month of herbal treatment her score dropped to 11, and then in the 3rd month dropped to 2.

<Case #5>

1. Race / Age : Asian / 48
2. Height / Weight: 5' 2" / 120 lbs.

3. Occupation : housewife
4. Case Start Date : March 22 2016
5. Chief Complaints: Anxiety, palpitation, fatigue, dizziness, sweat, heat sensation on upper torso
6. Oriental Medicine diagnosis : Kidney deficiency
7. Symptom occurred : February 2016
8. GTPAL = 3-3-0-2-3
9. Menstrual History
 - a. Menarche : 15 years old
 - b. LMP : February 2016
 - c. Cycle interval : 28 days
 - d. Flow length: 7 days
 - e. Amount : Heavy
 - f. Color : light red
 - g. Clots: moderate
 - h. Vaginal discharge : very mild white
 - i. Cramping : none
10. Medical history : peptic ulcer 2010
11. Family history : Father: HTN
12. Current medical condition :

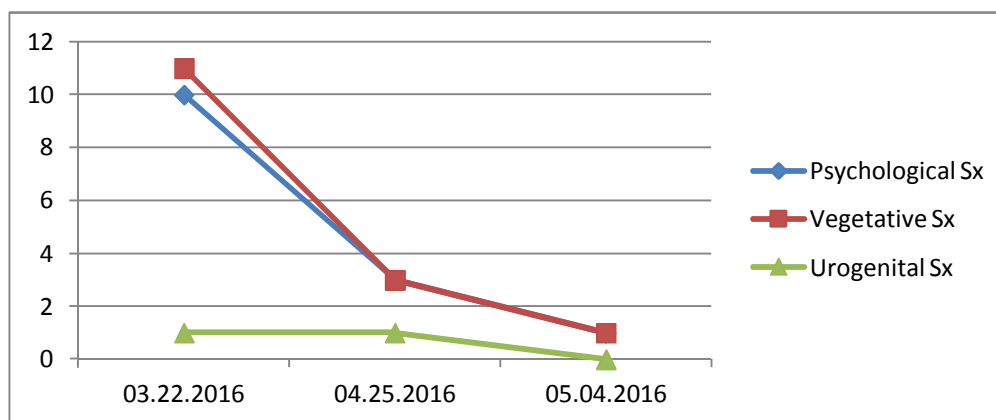
2014, period was stopped for 5 month and came back, she was having regular 28 days cycle period since then, but stopped again February 2016.
13. General questions

- a. Appetite : normal
- b. Digestion : bloating since 10 years ago
- c. Thirst: dry mouth
- d. Defecation : constipated
- e. Urination : normal, night urination
- f. Fever & Chill : used to feel cold, but now feels hot
- g. Perspiration : none
- h. Hand & Feet : cold hand & feet
- i. Upper Jiao : headache, dizziness
- j. Middle Jiao : stuffy chest, cannot wear tight shirts,
- k. Sleeping : insomnia
- l. Joint : none
- m. Tongue : red tongue, dry tongue
- n. Pulse : weak

14. Treatment

20 times of 1 dose of Chai Hu Jia Si Wu Tang was used to make 30 packs of herbal decoction. And patient was given 30 packs and directed to drink 2 packs per day for 15 days. Then the patient waits about ten days after finishing the 30 packs and starts another 30 packs on the same regimen. The patient completes this process again and ends treatment after three months on the herbal tea regimen.

15. Clinical Result

Figure 5. Case #5 MRS score

Age	Height/Weight	Occupation	Initial MRS score	Final MRS score
48	5'2" / 120 lbs	Housewife	25	2

March 22, 2016, patient was suffering from psychological symptoms such as anxiety, fatigue, vegetative symptoms such as palpitation, sweat, heat sensation on upper torso, and whole-body symptom such as dizziness. Her initial MRS (menopause rating scale) score was 25, but after a month of herbal treatment her score dropped to 6, and then in the 3rd month dropped to 2.

IV. DISCUSSION & CONCLUSION

In order to determine the severity of climacteric symptoms, Menopause Rating Scale (MRS) was used. MRS is made up with 3 categories, which are psychological symptoms, vegetative symptoms, and urogenital symptoms. Severity can be measure with total sum of each questions score. The highest score MRS can have is 44. Therefore, smaller number of score meaning patient have less severe symptoms.

On <Case #1>, initial total score was 30, and after a month of herbal treatment her score dropped to 18, and then in the 3rd month dropped to 7. Initial score for psychological symptoms were 13, vegetative symptoms were 12 and urogenital symptoms were 5. After the treatment those score was dropped to 2, 4 and 1. This is 85 % improvement on psychological symptoms, 67 % improvement on vegetative symptoms and 80 % improvement on urogenital symptoms.

Table 8. Treatment Progression - Case #1

Item	Treatment time and Score			Improvement %
	1 month	2 month	3 month	
Psychological	13	8	2	85%
Vegetative	12	7	4	67%
Urogenital	5	3	1	80%
Total Score	30	18	7	77.3%

On <Case #2> initial total score was 27, and after a month of herbal treatment her score dropped to 14, and then in the 3rd month dropped to 7. Initial score for psychological symptoms were 14, vegetative symptoms were 12 and urogenital symptoms were 1. After the treatment those score was dropped to 3, 3 and 1. This is 79 % improvement on psychological symptoms, 75 % improvement on vegetative symptoms and 0 % improvement on urogenital symptoms.

Table 9. Treatment Progression - Case #2

Item	Treatment time and Score			Improvement %
	1 month	2 month	3 month	
Psychological	14	7	3	79%
Vegetative	12	6	3	75%
Urogenital	1	1	1	0%
Total Score	27	14	7	51.3%

On <Case #3> initial total score was 28, and after a month of herbal treatment her score dropped to 13, and then in the 3rd month dropped to 4. Initial score for psychological symptoms were 12, vegetative symptoms were 13 and urogenital symptoms were 3. After the treatment those score was dropped to 2, 1 and 1. This is 84 % improvement on psychological symptoms, 93 % improvement on vegetative symptoms and 67 % improvement on urogenital symptoms.

Table 10. Treatment Progression - Case #3

Item	Treatment time and Score			Improvement %
	1 month	2 month	3 month	
Psychological	12	7	2	84%
Vegetative	13	3	2	93%
Urogenital	3	3	1	67%
Total Score	28	13	5	81.3%

On <Case #4> initial total score was 26, and after a month of herbal treatment her score dropped to 11, and then in the 3rd month dropped to 2. Initial score for psychological symptoms were 10, vegetative symptoms were 13 and urogenital symptoms were 3. After the treatment those score was dropped to 1, 1 and 0. This is 90 % improvement on psychological symptoms, 93 % improvement on vegetative symptoms and 100 % improvement on urogenital symptoms.

Table 11. Treatment Progression - Case #4

Item	Treatment time and Score			Improvement %
	1 month	2 month	3 month	
Psychological	10	5	1	90%
Vegetative	13	5	1	93%
Urogenital	3	1	0	100%

Total Score	26	11	2	94.3%
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On <Case #5> initial total score was 25, and after a month of herbal treatment her score dropped to 6, and then in the 3rd month dropped to 2. Initial score for psychological symptoms were 10, vegetative symptoms were 11 and urogenital symptoms were 4. After the treatment those score was dropped to 1, 1 and 0. This is 90 % improvement on psychological symptoms, 91 % improvement on vegetative symptoms and 100 % improvement on urogenital symptoms.

Table 12. Treatment Progression - Case #5

Item	Treatment time and Score			Improvement %
	1 month	2 month	3 month	
Psychological	10	3	1	90%
Vegetative	11	3	1	91%
Urogenital	4	0	0	100%
Total Score	25	6	2	93.6%%

According to these results, Psychological symptoms showed 85.6% improvement, 83.8 % improvement on vegetative symptoms and 69.4% improvement on urogenital symptoms.

Table 13. Final result of treatment

Case Number	Psychological Sx	Vegetative Sx	Urogenital Sx
Case #1	85%	67%	80%
Case #2	79%	75%	0%
Case #3	84%	93%	67%
Case #4	90%	93%	100%
Case #5	90%	91%	100%

From this study, Oriental Medicine formula was effective on acute menopause symptoms. Especially Chai Hu Jia Si Wu Tang (柴胡加四物湯) showed great improvement on psychological and vegetative symptoms. Chai Hu (柴胡) and Huang Qin(黃芩) works on middle jiao(中焦)to lowers fever, relieves qi constraint and calms liver yang rising, Sheng Di Huang (生地黃), Chi Shao(赤芍藥) and Da Huang (大黃) clears heats and cools the blood, Dang Gui (當歸) tonifies the blood, Gui Zhi (桂枝) unblocks the yang qi of the chest, Long Gu (龍骨) and Mu Li (牡蠣) heavily settles and calms the spirit, Fu Ling (茯苓) and Ban Xia (半夏) promotes urination and descends rebellious qi, Ren Shen (人蔘) calms the spirits and clears the mind , and tonifies Qi and Yang and benefits the kidney, Gan Cao(甘草) harmonizes formula. According to the composition of Chai Hu Jia Si Wu Tang (柴胡加四物湯), this formula has central nervous system (CSN)

inhibitor action (中樞神經抑制作用), therefore, this formula showed great effectiveness on psychological and vegetative symptoms such as depression, anxiety, palpitation, hot flashes, insomnia, etc.

It is difficult to treat all of menopause symptoms with one formula. However, by using this formula, further study and research can be done to development early stage treatment protocol or menopause prevention program.

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