

# Acupuncture in Gynecology and Obstetrics

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# Women's Physiology

- Bao Gong -Uterus
- Qi and Blood: Material Base
- Zang Fu: Source of Qi and Blood
- Bao Gong and Extraordinary Vessels
- Tian Gui

# Bao Gong - Uterus

- Uterus: *Zi bao, Nu zi bao, Zi zang, Zi chu, Zi Gong*
- Position :
  - Between guan yuan (Ren 4) and qihai (Ren 6)  
zhang jing yue (1563-1640)
  - Lower Field of Elixir ( Dan Tian «Ren 5»)
- One of the Six Extraordinary Organs
- Linked with kidney via a channel called Uterus channel *Bao luo*  
linked with heart via a channel called Uterus vessel *Bao mai*

# Characteristic of Women's Physiology

- Menstruation
- Conception
- Pregnancy
- Childbirth
- Lactation
- Menopause

# Xue - Blood

The concept of blood in TCM is not completely the same as it is in Western medicine does. Blood is a vital nutrient substance in the body. It is formed from the combination of essence of food, which derived via digestion and absorption by spleen and stomach, and fluids containing nutrients. Kidney also contributes to the formation of blood as kidney storing essence that produces bone marrow. After being formed, blood circulates in the vessels throughout the body, promoted by the heart with the help of lung, controlled by the spleen which keeps blood flowing within the vessels and regulated by the liver as a reserve.

shang-gu tian-zhen-lun pian di-yi  
上古天真論 篇 第一

di yue ren nian-lao er wu-zi-zhe cai-li jin ye jiang tian-shuran ye  
帝曰：人年老而無子者，材力盡耶，將天數然也？

qi-bo yue nü -zi qi-sui shen-qi sheng chi-geng fa-zhang  
岐伯曰：女子七歲，腎氣盛，齒更發長；  
er-qi er tian-gui zhi ren-mai tong tai-chong mai sheng yue-shi yi shi xia  
二七而天癸至，任脈通，太冲脈盛，月事以時下，  
gu you zi  
故有子；

san-qi shen-qi ping-jun gu zhen-ya sheng er zhang ji  
三七，腎氣平均，故真牙生而長極；

si-qi jin-gu jian fa chang ji shen-ti sheng-zhuang  
四七，筋骨堅，發長極，身體盛壯；

wu-qi yang-ming-mai shuai mian shi jiao fa shi duo  
五七，陽明脈衰，面始焦，發始墮；

liu-qi san-yang-mai shuaiyu shang mian jie jiao fa shi bai  
六七，三陽脈衰于上，面皆焦，發始白；

qi-qi ren-mai xu tai-chong-mai shuai-shao tian-gui jie di-dao bu-tong  
七七，任脈虛，太冲脈衰少，天癸竭，地道不通，  
gu xing-huai er wu-zi ye  
故形壞而無子也。

# Extraordinary meridian

- Du Mai
- Ren Mai
- Chong Mai

From the same source (Three branches of the same vessel)

## *Tan Gui*

- *Zhang jiebin*: **yin qi**, Tian yi zhi yin qi
- *Ma shi* (ming): **yin Jing**, produce by kidney, Gui:10th stem, pertain to water, is accumulation of congenital essence.
- *Xue Xue*: **congenital water**, Xian Tian zhen shui



## *Tan Gui*

- *Fu qing zhu* (qing): **menstrual blood**, not blood but Tian gui, which originate from the kidney yin with the participation of heart, spleen and liver.
- Xie ZF : **Sex-stimulating essence of both sexes**. (Xie ZF, In: Classified Dictionary of TCM)

# Physiology of menstruation in TCM

## The first chapter of Huang Di Nei Jing

In general, the reproductive physiology of woman is such that at seven of age her kidney become full,...; at 14 years the Tian gui comes into play, Ren mai circulating strongly (open), Chong mai is flourishing, the menses arrives and in regular interval, thus the conception is possible;

# Four phases of the menstrual cycle

- **Menstrual phase:** Blood moving, required free flow of liver qi and blood (move blood if period scanty, decrease bleeding if it heavy)
- **Post-menstrual phase:** blood and yin relatively empty, Ren and Chong mai depleted. (Nourishing blood and yin «liver and kidney»)
- **Mid-cycle phase:** blood and yin fill up in Ren and Chong mai (promote ovulation by nourishing the essence «kidney and **Yang**»)
- **Pre-menstrual phase:** Yang qi rise and liver qi moves in prepare for the period (Tonify yang qi if it deficient, move liver-qi if it stagnant)

*Giovanni Maciocia . Obstet & Gyne in Chinese medicine*

# Functions of kidney

- Stores the essence of life, either inborn or acquired.
- In charge of reproduction, growth and development;
- Control **Bones**, fill up the brain, produce **Marrow**;
- Helps the 'lung' to inhale air;

# Kidney refers to Western medicine

- Reproductive system
- Urogenital system
- Endocrine system
- Part of the immune system the higher nervous system

# Menstruation and Zang Fu

## 1

### Kidney

- Store essence-**material basis** for formation of menstrual blood ;
- Formation of **Tian Gui**

# Menstruation and Zang Fu

## 2

**Liver** store the blood, ensures the smooth flow of qi.

- *Liver blood deficient*: scanty periods, later periods or amenorrhea.
- *Liver qi* regular the cycle and blood volume
- *Liver qi stagnation*: irregular menses; premenstrual syndrome; dysmenorrhea, amenorrhea.

# Menstruation and Zang Fu

## 3

**Spleen** Produces Gu qi (*Food qi*) which is the basis for formation of blood, controls blood.

- Spleen qi controlling blood in the vessel- Spleen qi is deficient, blood spill out the vessels, resulting hemorrhages.
- Spleen qi keep uterus in place, deficient of spleen qi cause prolapse.



# Menstruation and Zang Fu

## 4

Heart governs the blood

Lung contributed to produce blood

Chong mai Sea of the blood

Ren mai Sea of yin meridians

Du mai Sea of yang meridians

# Menopause in TCM

In the first chapter of *Huang Di Nei Jing*

At the age of 35, *Yanming* channel begin to weaken, the complexion start to wither and the hair begin to fall. At the age of 42, three yang channels are weak, the face darkens and the hair turn grey. At the age of 49, the *Ren mai* is **empty**, *Chong mai* is **depleted**, *tian gui* has **exhausted**. Hence, the flow of menses **ceases** and woman is no longer able to conceive.

# Etiology of menopause

- Gradual weakening of the kidney with age
- Emotional stress: Worry, anxiety and fear lead to decline the kidney yin
- Intemperate sexuality
- Overwork, irregular diet, loss of blood.
- Too many children, too close together

# Pathology of menopause

- Decline of the kidney essence.
- A deficiency of the Chong and Ren mai.
- Depletion of tiangui, and an insufficiency of qi and ‘blood’; thereby, the Yin and Yang of the ‘kidney’ are liable to be out of equilibrium.

# Syndromes Differentiation

## ① Deficiency of **kidney yin**

- Deficiency of the kidney Yin and the ‘internal heat’
- Discord between heart and kidney
- Deficiency liver and kidney Yin

# Syndromes Differentiation

## ② Deficiency of **kidney yang**

- Deficiency of kidney yang
- Deficiency spleen and kidney Yang

## ③ Deficiency both the **kidney Yin and Yang**

# Syndrome differentiation and the treatment (SDT)

- Primary manifestations (PM)
- Tongue and pulse (TP)
- Accompanied symptoms (AS)

# SDT1 Deficiency of the kidney Yin and the ‘internal heat’

- PM: Hot flushes and sweating, feverish sensation in the palms and soles, dryness of the mouth, skin and vagina.
- TP: red tongue with thin, dry coating or no coating; thready, rapid pulse or floating-empty.
- AS: constipation; weakness of the lower back and knees; dizziness; amnesia.



# Treatment principle and Prescription

- Nourish kidney yin, subdue yang, calm the mind, clear the empty heat
- Acupuncture : Shenshu (BL 23), Gaohuang (BL 43), Taixi (KI 3), Sanyinjiao (SP 6), Lieque (LU 7), Zaohai (KI 6), Zhigou (SJ 7), Dazhui (GV 14), Quchi (LI 11).
- Prescription : Zuogui wan (bolus for kidney Yin replenishment)

## SDT 2 Discord (not harmonized) between heart and kidney

- **PM:** hot flushes and sweats, anxiety, restlessness, insomnia, palpitations.
- **TP:** red tongue with scanty or no coating; thready, rapid pulse or weak deep on both Rear (chi mai)
- **AS:** amnesia, sensation in the lower back soreness and weak

# Treatment principle and Prescription

- Nourish kidney yin, calm the mind clear empty heat (xiu huo)
- Acupuncture: Shenshu (BL 23), Lieque ( LU 7), Zhaohai (KI 6), Taixi (KI 3), Xinshu (BL 15), Shenmen (HT 7), Baihui (CV 20), Sanyinjiao (SP 6).
- Prescription : (1) Zuogui wan (2) Bu Xin Dan

# SDT 3 Deficiency of the liver Yin and kidney Yin with liver yang rising

- **PM** : Hot flushes and sweating; irritability; dry skin and eye.
- **TP** : red tongue with scanty coating; taut, forceful, or taut, thready and rapid pulse.
- **AS** : dizziness; tinnitus, headache;

# Treatment principle and Prescription

- Nourish kidney and liver yin, subdue liver yang, settle ethereal soul (huwen)
- Acupuncture: Shenshu (BL 23), Taixi (KI 3), Tai chong (LR 3), Sanyinjiao (SP 6), Fengchi (GB 20), Benshen (GB 13), Dazhui (GV 14), Ganshu (BL 18), Fulu (KI 7).
- Prescription: Qi Ju Di Huang Wan

# SDT 4 Deficiency of the kidney Yang

- PM: Hot flushes cold in four limb, pallor or sallow complexion; depression sexual hypaesthesia.
- TP: pale tongue with white coating; deep weak pulse, worse on the chi of both wrists.
- AS: frequently weakness of the lower back and knees and profuse urine or urinary incontinence;

# Treatment principle and Prescription

- Tonify and warm the kidney, tonify yang.
- Acupuncture: Shenshu (BL 23), Dazhui (GV 14), Mingmen (GV 4), Guanyuan (CV 4), Pangguangshu (BL 28), Sanyinjiao (SP 6).
- Prescription: Yougui wan

# SDT 5 Deficiency both of the spleen and kidney Yang

- **PM:** Hot flushes and cold limbs, pale or sallow complexion; general lassitude; abdominal distention; diarrhea at the morning
- **TP:** pale tongue with teeth prints and white coating; thready and weak pulse.
- **AS:** poor appetite; spontaneous sweating; soreness and weakness of the lower back and knees;



# Treatment principle and Prescription

- Tonify and warm both kidney and spleen

Acupuncture: Shenshu (BL 23), Mingmen (GV 4), Qihai (CV 6), Taixi (KI 3), Pishu (BL 20), Gongsun (SP 4), Zusanli (ST 36), Zhongwan (CV 12).

Prescription: Yougui wan and Li zhong Tang

# SDT 6 Deficiency of kidney

## Yin and Yang

- PM: Hot flushes but cold in four limbs general lassitude, slightly agitate.
- TP: pale or red tongue, floating and empty or fine-rapid depend on which one predominate.
- AS: frequent pale urination, dry throat, night sweating; hyposexuality, shortness of breath.

# Treatment principle and Prescription

- Nourish the kidney, gently tonify yang, calm the mind.
- Acupuncture: Shenshu (BL 23), Dazhui (GV 14), Qihai (CV 6), Taixi (KI 3), Gaohuang (BL 43), Sanyinjiao (SP 6), Zusanli (ST 36), Jingmen (GB 25).
- Prescription: Zuogui wan and Yougui wan

# Reviews: acupuncture and menopause I

- Inhibits the decrease in brain **catecholamine** contents, improves the memory loss and decrease of immune responses accompanying aging

*Toriizuka K, et al. Acupunct Electrother Res. 1999*

- Increase calcitonin gene-related peptide.

*Wyon Y, et al. Acta Physiol Scand. 1998 Apr.*

# Reviews: acupuncture on menopause II

- Does not alter blood pressure or serum lipids for hypertensive postmenopausal women.

*Kraft K, et al. Forsch Komplementarmed. 1999 Apr*

# Acupuncture in the treatment of menopausal vasomotor symptoms

- **Objective:** To determine the efficacy of acupuncture on menopausal vasomotor symptoms.
- **Design :** Prospective study
- **Setting :** Infertility and Gynecologic Endocrinology Clinic, Department of Obstetrics and Gynecology
- **Patients :** 22 patients suffer from menopausal hot flashes entered into this study.
- **Interventions :** Patients were treated with the classical acupuncture.
- **Measures :** Intensity and frequency of hot flashes
- **Results :**  
10 out of 22 patients (45%) the hot flashes completely disappeared. 9 patients (41%) had a marked improvement of their symptoms. 3 patients (14%) no changes.

The total rate of effectiveness was 86 %.

# The Effects of Acupuncture on the Quality of Life and Reproductive Hormonal Levels in Menopausal Women

- **Objective**

To assess the effects of acupuncture on the quality of life and reproductive hormonal secretion in menopausal women.

- **Design**

A prospective study comparing changes in the quality of life and reproductive hormones in menopausal women

# The Effects of Acupuncture on the Quality of Life and Reproductive Hormonal Levels in Menopausal Women

- Patients and Methods

Eleven menopausal women suffering from vasomotor symptoms and who had no HRT during the previous six months entered into this study.

- Exclusion

Metabolic, thromboembolic, renal or endocrine disease.



# Main outcome measure

Date du jour
Nom et Pénom
Date de naissance
Médicaments
Ménopause depuis

Mettez une croix dans la case correspondante à l'intensité du symptôme.

A change in the Menopause-specific quality of life questionnaire and Reproductive hormone levels

- **Menopause-specific quality of life questionnaire**

- a) vasomotor symptoms
- b) psychological symptoms
- c) physical symptoms
- d) sexual symptoms

	Gradation des Symptomes						
	Absent 0	1	2	3	4	5	Très Marqué 6
1 Bouffées de chaleur							
2 Sudations nocturnes							
3 Sudations							
4 Insatisfaction dans votre vie personnelle							
5 Sentiments d'angoisse, nervosité							
6 Troubles de la mémoire							
7 Diminution de l'activité							
8 Etat dépressif, morosité							
9 Manque de patience envers autrui							
10 Envie de rester seule							
11 Flatulences (gaz abdominaux)							
12 Douleurs articulaires ou musculaire							
13 Sentiment de fatigue							
14 Insomnie							
15 Maux de dos ou de tête							
16 Diminution de la force physique							
17 Diminution de la résistance nerveuse							
18 Manque d'énergie							
19 Peau sèche							
20 Augmentation de poids							
21 Augmentation de la pilosité faciale							
22 Modification de la texture de votre peau							
23 Impression de ballonnement							
24 Douleur lombaires							
25 Envie fréquente d'uriner							
26 Perte d'urine lors de rire ou de toux							
27 Modification du désir sexuel							
28 Sécheresse vaginale lors des rapports							
29 Tendance à éviter les rapports sexuels							

# Reproductive Hormonal

- Follicular stimulating hormone (FSH)
- Luteinizing hormone (LH)
- Oestradiol
- Progesterone
- Prolactin

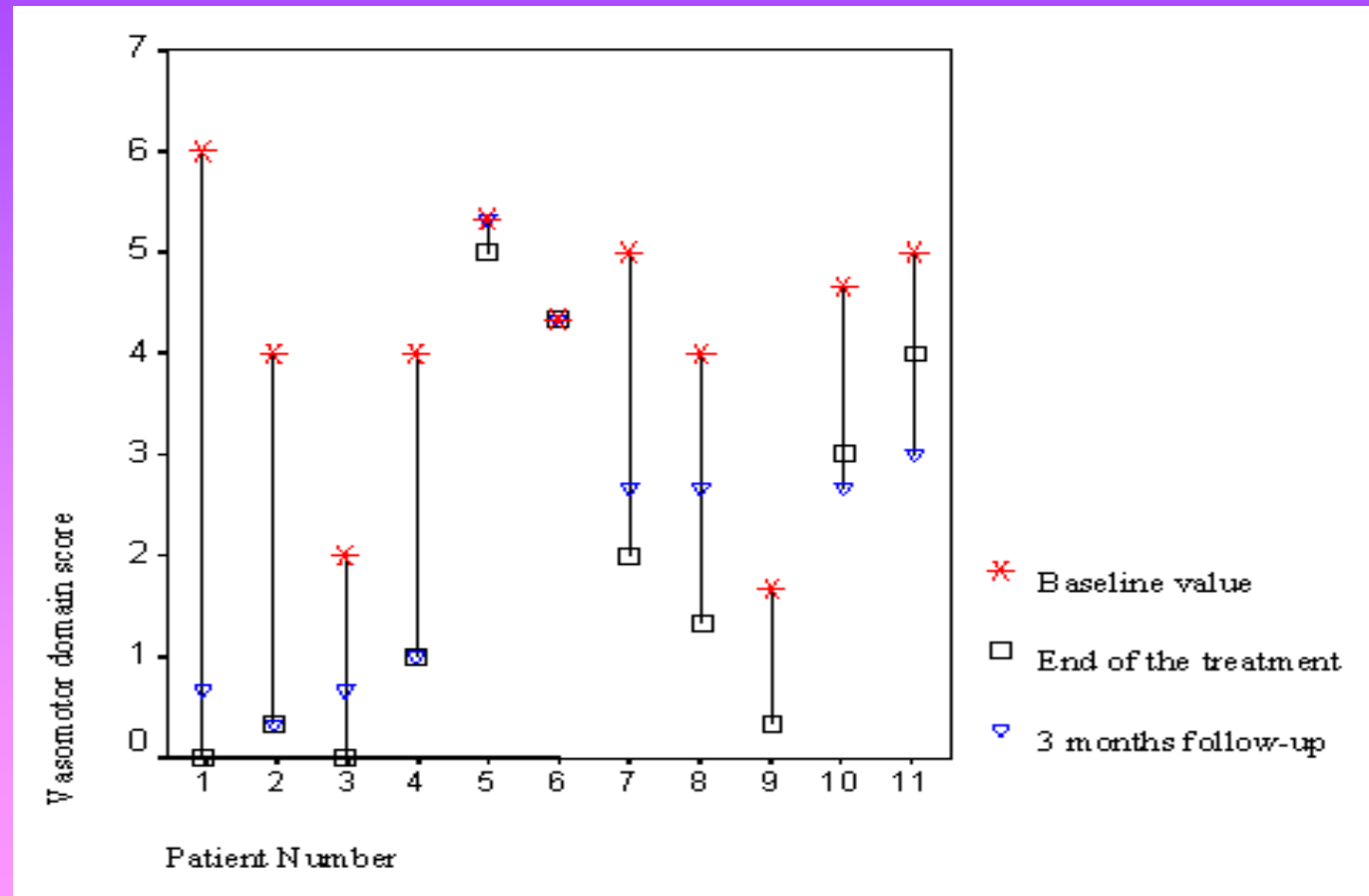
# Acupuncture treatment

- Classical manual acupuncture was applied and the choice of acupuncture points was made according to syndrome diagnosis.
- The depth of the inserted needles (sterilized and disposable) in accordance with the rules of TC M and as confirmed by «De qi»
- Two sessions a week for five consecutive weeks. The duration of each session was about 40 minutes.

## Changes of quality of life scores from pre-treatment (baseline) to the end of the treatment and 3 months after the end of treatment (follow-up)

Domain score	Baseline score	End of the treatment minus baseline (n=11)			3 months follow-up after treatment minus baseline (n=10)		
		Mean change ± S.D.	95 % confidence interval	p-value	Mean change ± S.D.	95 % confidence interval	p-value
Physical	2.4	-0.79 ± 0.89	-1.39 to -0.19	0.014	-0.49 ± 0.67	-0.97 to -0.009	0.046
Vasomotor	4.2	-2.24 ± 1.7	-3.38 to -1.1	0.001	-2.1 ± 1.62	-3.26 to -0.93	0.003
Psychosocial	2.04	-0.75 ± 1.2	-1.55 to 0.53	0.64	-0.73 ± 1.41	-1.74 to 0.28	0.14
Sexual	2.27	-0.24 ± 1.01	-0.92 to 0.43	0.44	-2.6 ± 0.6	-0.69 to 0.16	0.19

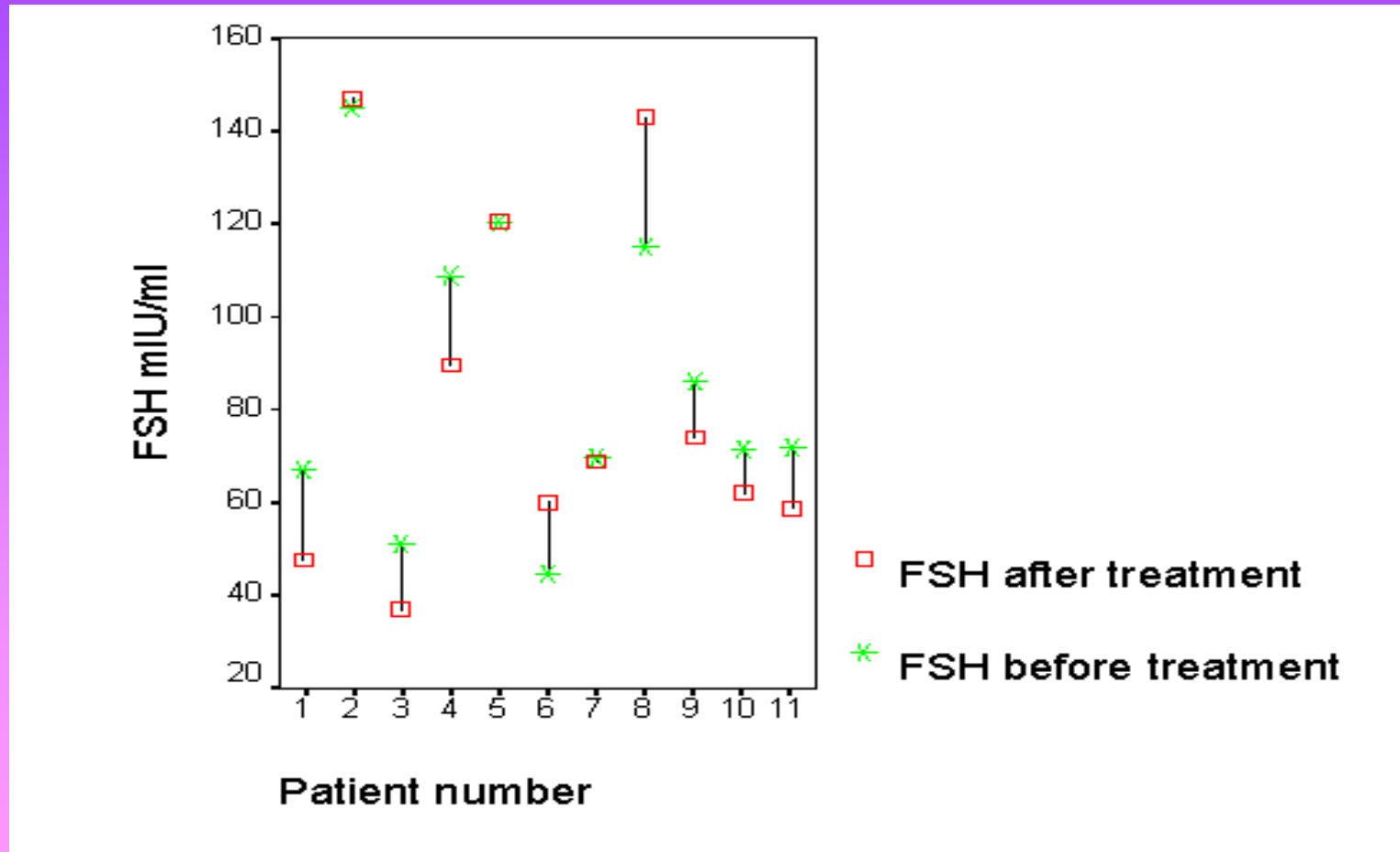
# Vasomotor domain score assessed by MenoQol questionnaire



# The Effects of Acupuncture on Reproductive Hormonal levels

	(N= 11)		P value
	Mean score before and after treatment before	after	
FSH	80.3 ± 11.4	73.5 ± 13.9	0.1613
LH	48.0 ± 6.6	41.3 ± 8.9	0.2731
E2	46.1 ± 24.6	41.8 ± 17.2	0.6222
Prl	10.8 ± 1.7	11.5 ± 1.8	0.5301
Prog	0.3 ± 0.0	0.2 ± 0.0	0.7149

# The influence of acupuncture treatment on FSH secretion in 11 menopausal women



# Results

- Acupuncture significantly improved menopausal vasomotor and physical symptoms, did not change psychosocial or sexual symptoms, nor follicular stimulating hormone, luteinizing hormone, oestradiol, prolactin or progesterone secretion.



# Discussions

- Endocrinology of hot flushes
  - Estrogen
  - Progesterone
  - Catecholamine
  - Endorphin
  - Prostaglandin
  - GnRH

# Discussions

- Beta-endorphin
  - pain perception
  - mental state
  - thermoregulation
  - eating and learning
  - pituitary hormone (gonadotrophin, prolactin) secretion

# Discussions

- Reduction of beta-endorphin has been proposed to be involved in the mechanism of hot flashes
- It has been repeatedly shown that beta-endorphin production and activity can be increased by acupuncture stimulation
- Acupuncture maybe through increasing beta-endorphin to regulate the thermoregulation

# Discussions

- Control issues
  - Sham acupuncture
  - Mock transcutaneous nerve stimulation

# Conclusion

- Acupuncture treatment may be useful for women suffering from climacteric symptoms, who are unable or do not want to receive hormone replacement therapy.