

Conventional medicine  
in combination with Acupuncture in the  
treatment of Menopausal Symptoms

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# Ménopause

**Ménopause**  
**Absence de règles**  
**> 1an**

# Ménopause

Dérèglement des cycles et/ou  
apparition de troubles climatiques

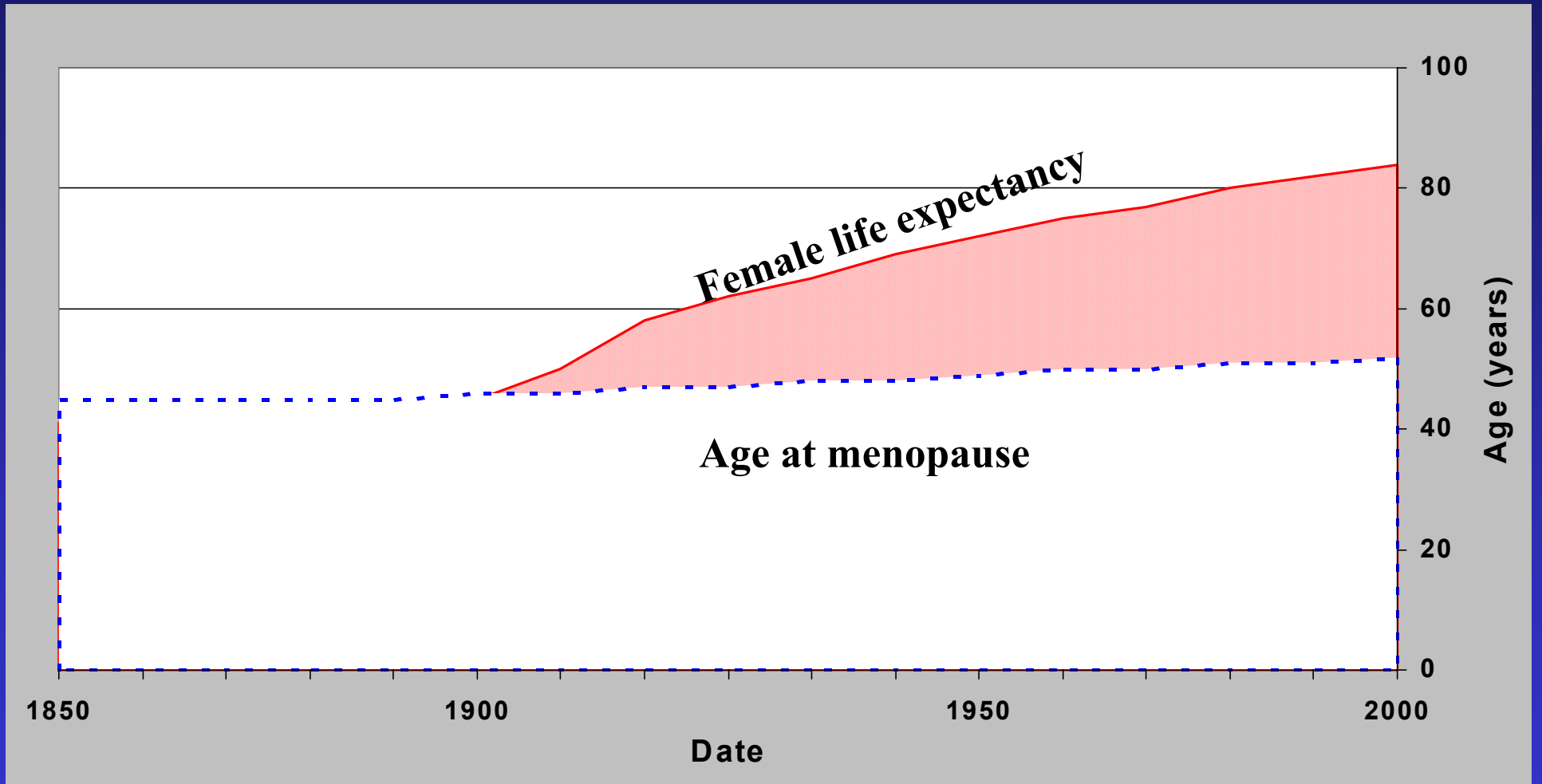


Âge de 40 ans

1 année après la  
ménopause

**Ménopause**

l'arrêt définitif des règles



# Age moyen de la ménopause

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<b>Pays</b>	<b>Age moyen de la ménopause</b>
Suisse (1961)	49,8
Finlande (1961)	49,8
Pays-Bas (1969)	51,4
Ecosse (1973)	50,1
Allemagne (1981)	49,6
Angleterre (1981)	50,8
Suède (1981)	50,4

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# Préménopause et Périclimacurie



# Variations hormonales avant et après la ménopause

	PREMENOPAUSE		POST-MENOPAUSE	
	Age < 45 ans	Age ≥ 45 ans	1-4 ans	> 4 ans
FSH	N ↑	↑	↑↑↑	↑↑
LH	N	N	↑↑	↑
Estradiol	N	N ↓	↓↓↓	↓↓
Progestérone	N	↓	↓↓↓	↓↓↓
Prolactine	N	N	↓	↓↓
Testostérone	N	N	↓	↓

# Post-ménopause : Expression clinique de l'Hypoestrogénie

## Conséquences à court terme :

Manifestations vasomotrices	Bouffées de chaleur, crises sudorales nocturnes
Manifestations psychologiques	Symptômes dépressifs

## Conséquences à moyen terme :

Tractus urinaire inférieur	Urétrite, cystite, incontinence urinaire
Vulve, vagin	Prurit vulvaire, vaginite, dysparéunie,
Utérus	Involution
Seins	Atrophie glandulaire, dépigmentation du mamelon
Peau	Amincissement, diminution de la vascularisation
Cheveux	Diminution de l'élasticité, dépigmentation
Poils	<u>Hirsutisme</u>

## Conséquences à long terme :

Masse osseuse	Ostéoporose
Facteur cardio-vasculaire	Risque cardio-vasculaire



# Troubles observés à la ménopause (%)

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Bouffées de chaleur	67
Etat dépressif	28,5
Transpiration excessive	31
Insomnie	26
Vaginite atrophique	20
Fatigue	18,5
Céphalée	11
Modification du poids	7
Modification des cheveux	6,5
Modification de la peau	6
Modification du sein	5,5

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# Hormonothérapie substitutive

## Qui traiter ?

- Femmes gênées par les troubles climatériques
- Femmes ayant une ménopause précoce
- Femmes à haut risque d'ostéoporose

## A partir de quand traiter ?

- Ménopause confirmée

# Choix de l'Estrogène

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<b>Estrogène</b>	<b>Voie d'administration</b>
Estrogènes naturels	
17 $\beta$ -Estradiol	Orale, transdermique, percutanée, vaginale
Estriol	Orale, vaginale
Estrogènes semi-naturels	Orale
Valérate de 17 $\beta$ -Estradiol	
Estrogènes conjugués	Orale, vaginale

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# Choix d'un Progestatif

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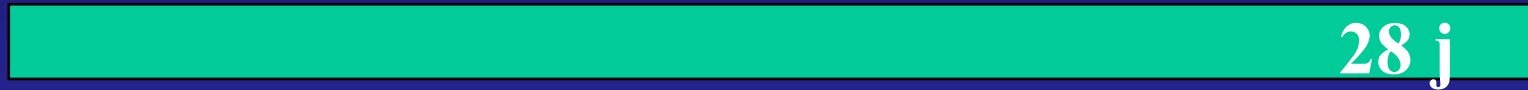
<b>Progestatif</b>	<b>Voie d'administration</b>
Progestérone	Orale
Rétroprogestérone	
Dydrogestérone	Orale
Dérivés de la progestérone	
Médrogestone	Orale
Acétate de médroxyprogestérone	Orale

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# Les régimes

## Substitution estrogénique continue

$E_2$



## Substitution estro-progestative séquentielle

$E_2$



$P_4$



## Substitution estro-progestative continue

$E_2$



$P_4$



**Does "One size fits all" ?**

# 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 strongerly, *Chong mai* is flourishing, the menses arrives and in regular interval, thus the conception is possible;

## *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): **menstual 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)

# 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 haemorrhages.
- 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 channel

**Du mai** Sea of yang channels

# Menopause in TCM

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 mense **ceases** and woman is no longer able to conceive.



# Aetiology of menopause

- Gradual weakening of the **kidney** with age
- Emotional stress: Worry, anxiety and fear lead to deficiency 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-empt.
- **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
- **AS**: amnesia, sensation in the lower back soreness and weak



# Treatment principle and Prescription

Nourish kidney yin, calm the mind clear *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 *huwen*

Acupuncture: Shenshu (BL 23), Taixi (KI 3), Taichong (LR 3), Sanyinjiao (SP 6), Fengchi (GB 20), Benshen (GB 13), Dazhui (GV 14), Ganshu (BL 18), Fuli (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:** **weakness of the lower back and knees frequent** 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 of the spleen Yang and kidney Yang

- **PM:** Hot flushes and cold limbs, pale face 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 predominates.
- **AS:** frequent pale urination, dry throat, night sweating; hyposexuality, shortness of breath.



# Treatment principle and Prescription

Nourish the kidney, gently tonfy 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.



# 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)

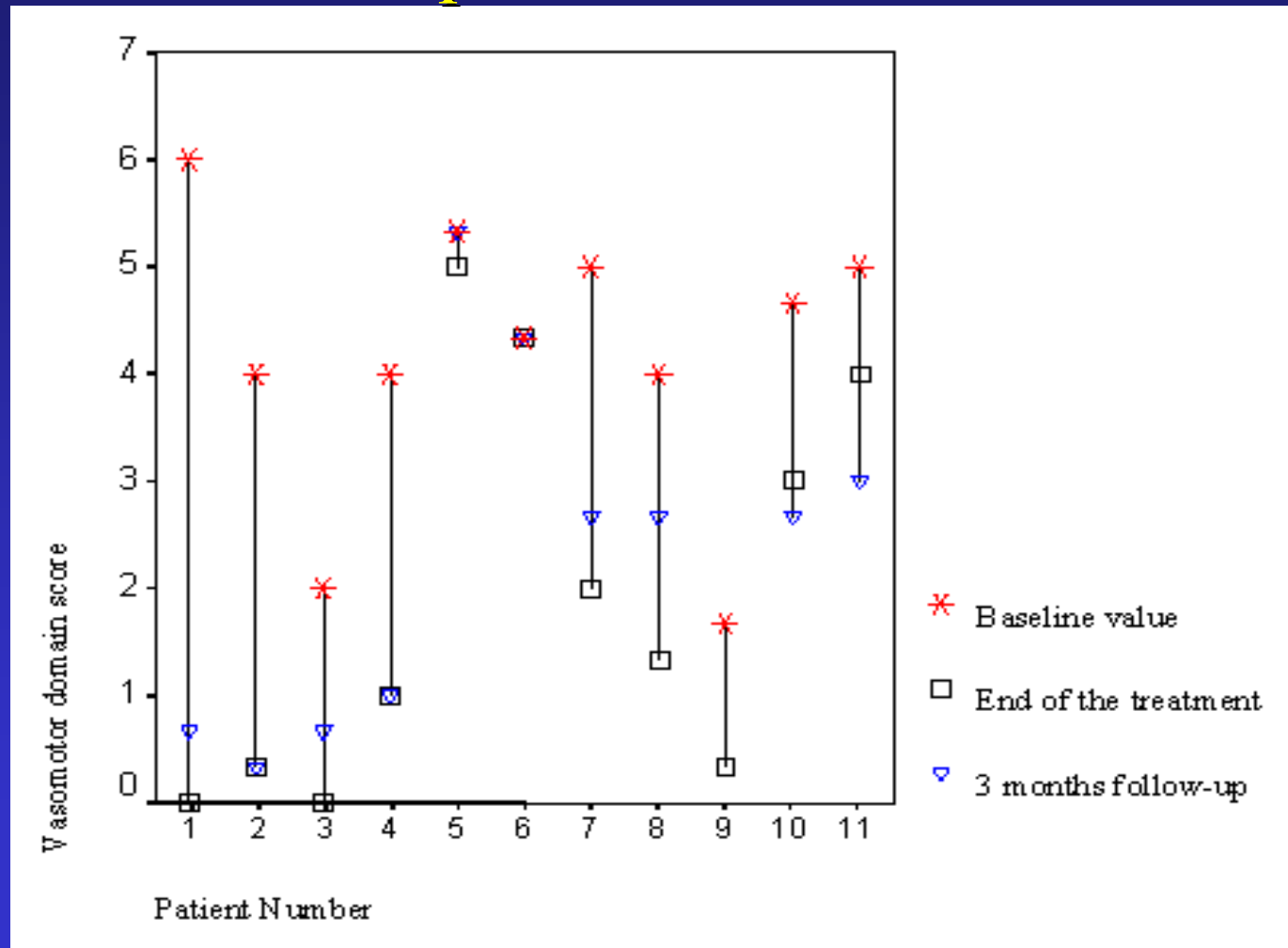
	Baseline score	End of the treatment minus baseline (n=11)		3 months follow-up after treatment minus baseline (n=10)	
Domain score		Mean change ± S.D.	95 % confidence interval	Mean change ± S.D.	95 % confidence interval
Physical	2.4	-0.79 ± 0.89 *	-1.39 to -0.19	-0.49 ± 0.67 **	-0.97 to -0.009
Vasomotor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

p-values are for comparison between after treatment and follow-up values to baseline : \* p=0.014 ;

\*\* p =0.046;

‡ p=0.001; † p=0.003

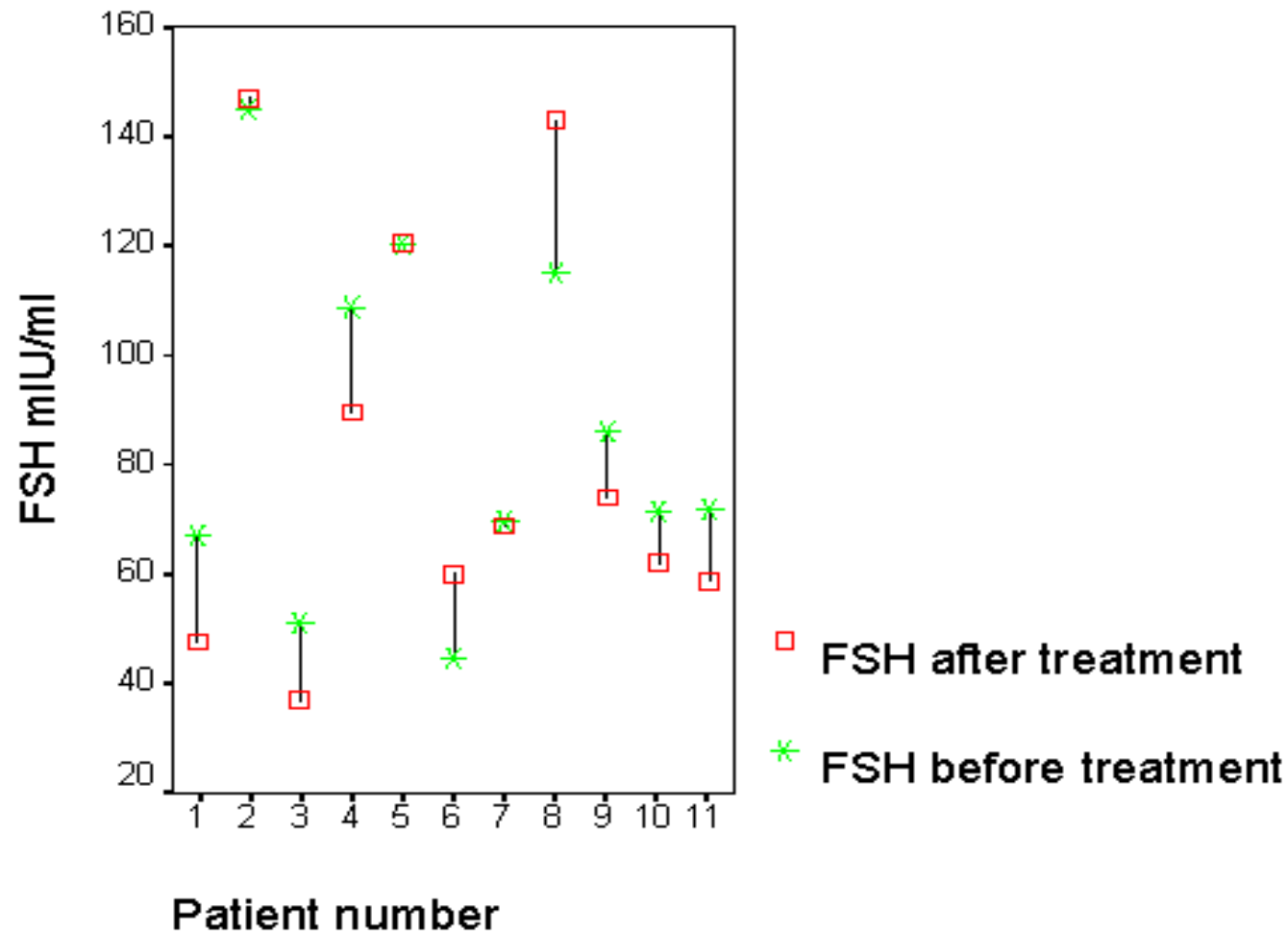
# Vasomotor domain score assessed by MenoQol questionnaire



# 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

- 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.

# Discussions

- Endocrinology of hot flushes

↓ Estrogen  
↓ Progesteron  
↓ Catecholamine  
↓ Endorphine

↑ Prostaglandin  
↑ GnRH

# Discussions

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