Acupuncture in Gynecology and Obstetrics

Dr. Hongguang Dong
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)
  – 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.
上古天真论篇第一

diyue ren nian-lao er wu-zizhe cai-li jiu ye jiang tian-shuran ye

帝曰：人年老面无子者，材力将何，将大衰然也？

qi-bo yue nu-zi qi-sui shen-qi sheng chi-geng fa-zhang

岐伯曰：女子七岁，肾气盛，齿更发长；
er-qi er tian-gui zhi ren-mai tong tai-chong mai sheng yue-shi yi shi xia

二七而天癸至，任脉通，太冲脉盛，月事以时下，
gu you zi

故有子；
san-qi shen-qi ping-jun gu zhen-ya sheng er zhang ji

三七，肾气平均，故真牙生而长极；
si-qi jin-gu jian fa chang ji shen-ti sheng-zhuang

四七，筋骨坚，发长极，身体盛壮；
wu-qi yang-ming-mai shuai mian shi jiao fa shi duo

五七，阳明脉衰，面始焦，发始堕；
liu-qi san-yang-mai shuaiyu shang mian jie jiao fa shi bai

六七，三阳脉衰于上，面皆焦，发始白；
qi-qi ren-mai xu tai-chong-mai shuai-shao tian-guijie di-dao bu-tong

七七，任脉虚，太冲脉衰少，天癸竭，地道不通，
gu xing-huai er wu-zi ye

故形坏而无子也。
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 live qi moves in prepare for the period (Tonify yang qi if it deficient, move live-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

Kidney

• Store essence- material basis for formation of menstrual blood;

• Formation of Tian Gui
Menstruation and Zang Fu

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), Sanyijniao (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), Fuliu (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.


- Increase calcitonin gene-related peptide.

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

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
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)

<table>
<thead>
<tr>
<th>Domain score</th>
<th>Baseline score</th>
<th>End of the treatment minus baseline (n=11)</th>
<th>3 months follow-up after treatment minus baseline (n=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline score</td>
<td>Mean change ± S.D.</td>
<td>95 % confidence interval</td>
</tr>
<tr>
<td>Physical</td>
<td>2.4</td>
<td>-0.79 ± 0.89</td>
<td>-1.39 to -0.19</td>
</tr>
<tr>
<td>Vasomotor</td>
<td>4.2</td>
<td>-2.24 ± 1.7</td>
<td>-3.38 to -1.1</td>
</tr>
<tr>
<td>Psychosocial</td>
<td>2.04</td>
<td>-0.75 ± 1.2</td>
<td>-1.55 to 0.53</td>
</tr>
<tr>
<td>Sexual</td>
<td>2.27</td>
<td>-0.24 ± 1.01</td>
<td>-0.92 to 0.043</td>
</tr>
</tbody>
</table>
Vasomotor domain score assessed by MenoQoL questionnaire
### The Effects of Acupuncture on Reproductive Hormonal levels

<table>
<thead>
<tr>
<th></th>
<th>Mean score before and after treatment</th>
<th>P value</th>
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<tbody>
<tr>
<td></td>
<td>(N= 11)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>before</td>
<td>after</td>
</tr>
<tr>
<td>FSH</td>
<td>80.3 ± 11.4</td>
<td>73.5 ± 13.9</td>
</tr>
<tr>
<td>LH</td>
<td>48.0 ± 6.6</td>
<td>41.3 ± 8.9</td>
</tr>
<tr>
<td>E2</td>
<td>46.1 ± 24.6</td>
<td>41.8 ± 17.2</td>
</tr>
<tr>
<td>Prl</td>
<td>10.8 ± 1.7</td>
<td>11.5 ± 1.8</td>
</tr>
<tr>
<td>Prog</td>
<td>0.3 ± 0.0</td>
<td>0.2 ± 0.0</td>
</tr>
</tbody>
</table>
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.