Acupuncture in Gynecology and Obstetrics

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Physiological and pathological characteristics of women

- Physiology:
  - Menstruation, pregnancy, delivery and child-feeding

- Pathology
  - Disorders of menstruation, leucorrhoea (excessive vaginal discharge), pregnancy and delivery
Base of Reproduction

- Bao Gong - Uterus
- Tian Gui
- Qi and Blood: Material Base
- Zang Fu: Source of Qi and Blood
- Extraordinary Vessels
Qi, Blood, Zang Fu, Meridians and their relation with physiological activities of women

Fig. 2.15 Interrelationships of the Internal Organs, the Vital Substances, the Uterus and the Extraordinary Vessels.
Bao Gong – Uterus: Extraordinary

- **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»)

- **Linked with kidney via a channel called Uterus channel Bao luo**

  linked with heart via a channel called Uterus vessel *Bao mai*
The Uterus connection with Kidneys and Heart.

HEART

Uterus Vessel (Bao Mai)

UTERUS

Uterus Channel (Bao Luo)

KIDNEYS
Bao Gong – Uterus: Extraordinary

Function:

• A Installing: store essence and blood for menstruation and conceiving fetus, like Zang organs: five zang organs are solid, installing but not discharging (essence, blood)

• B Excretion: discharge of menstruation or deliver baby similar Fu organs: six fu organs are hollow, dischargeing their content but not installing.
上古天真论篇第一

帝曰：人年老而无子者，材力尽耶，将大数然也？

岐伯曰：女子七岁，肾气盛，齿更发长；
二七而天癸至，任脉通，太冲脉盛，月事以时下，
故有子；
三七，肾气平均，故真牙生而长极；
四七，筋骨坚，发长极，身体盛壮；
五七，阳明脉衰，面始焦，发始堕；
六七，三阳脉衰于上，面皆焦，发始白；
七七，任脉虚，太冲脉衰少，天癸竭，地道不通，
故形坏而无子也。
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;...
Tian 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)
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
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
Physiological activities of women with Zang Fu

Kidney

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

- Formation of Tian Gui
Physiological activities of women with 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.
Physiological activities of women with Zang Fu

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

- Spleen qi controlling blood in the vessel (if Spleen qi is deficient, blood spill out the vessels, resulting hemorrhages).
- Spleen qi keep uterus in place, deficient of spleen qi cause prolapse.
Physiological activities of women with Zang Fu and Extraordinary vessel

- **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
Extraordinary meridian

- Du Mai
- Ren Mai
- Chong Mai

The same source  Huiyin (Ren-1) (Three branches of one vessel)
The Uterus and Internal Organs.
KIDNEY ESSENCE

Essence is biological basis for menstrual blood (Heavenly Gui)

MINISTER FIRE

Minister Fire is origin of both Fire and Water. Fire warms and activates

LIVER

BLOOD

Provides Blood to Uterus

QI

LIV-Qi moves Blood for menstruation to occur

HEART

Governs Blood. HE-Blood goes down to Uterus (Uterus Vessel)

HE-YANG

Goes down to Uterus and Kidneys and contributes to forming Heavenly Gui

Spleen

Makes Blood

QI

SP-Qi holds blood in Vessels and Uterus in place

LUNGS

LU-Qi contributes to making blood

STOMACH

Connected to Uterus via the Penetrating vessel

Fig. 2.6 Internal Organs and menstruation.
Fig. 2.3 The four phases of the menstrual cycle.
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-Yang»)

• **Pre-menstrual phase**: Yang qi rises 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*
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.
Blood is essential essence

The nature of women are belong to yin and Blood is essential to women. Menstruation is transformed from blood; fetus depends on blood to nourish and milk relies on blood to produce. Blood is easy to be consumed by the menstruation, pregnancy, labour and lactation, eventually leading to relative hyperactivity of qi due to deficiency of blood.

“ling shu: wu yin wu wei: woman is born constitutionally, excessive in qi and insufficient in the blood, as in women’s life there are many occasion to lose blood.”
Types of Qi and their origins

- **Lungs**: process air
  - **Kong Qi**: Air Qi
  - **Zong Qi**: Gathering Qi

- **Spleen**: process food
  - **Gu Qi**: Grain Qi
  - **Yuan Qi**: Original Qi

- **Zang Fu**: Organ Qi
  - **Wei Qi**: Defensive Qi
  - **Ying Qi**: Nutritive Qi
  - **Zheng Qi**: Normal Qi

**Diagram:**
- Arrows indicate the flow of Qi between the different types and their origins.
Pathological characteristics

Cause disease

• Six exogenous pathogenic factors
• Seven emotions
• Improper diet
• Overstrain
• Excessive sexual intercourse
• Incised wound and wound due to insects and animal attack
Pathological characteristics

Pathogenesis

- Dysfunction of Zangfu
- Disorder of qi and blood
- Impairment of the Chong, Ren, Du and Dai Mai
Infertility

— The standard **medical definition of infertility** is the inability of a couple to conceive after 12 months of intercourse without the use of contraception.
Fig. 2.19  Factors in conception.
Fig. 57.3 Causes of infertility.
Ovulation induction

• Stener-Victorin et al: Effects of Electro-acupuncture on anovulation in women with polycystic ovary syndrome.

• Stener-Victorin et al. Effects of electro-acupuncture on nerve growth factor and ovarian morphology in rats with experimentally induced polycystic ovaries.
  Biol Reprod. 2000 Nov;63(5):1497-503

• Chen BY. Acupuncture normalises dysfunction of hypothalamic-pituitary-ovarian axis.
Ovulation induction

• Chen BY, Yu J. Relationship between blood radioimmunoreactive beta-endorphin and hand skin temperature, during the electro-acupuncture induction of ovulation. Acupunct Electrother Res. 1991;16(1-2):1-5.

Infertility

- Stener-Victorin E: Reduction of blood flow impedance in the uterine arteries of infertile women with Electro-acupuncture.
  Hum Reprod 1996 Jun;11(6):1314-7
- Gerhard I et al:
  Auricular acupuncture in the treatment of female infertility.
  Gynecol Endocrinol 1992 Sep;6(3):171-81
Analgesia in IVF


  LI4 TE5 ST29 GV 20 ST 36

  *Hum Reprod 1999 Oct;14(10):2480-4*
Influence of acupuncture on the pregnancy rate in IVF

160 participants were divided into two groups, each receiving a standard in-vitro procedure (IVF).

- (IVF) Only 26.3%
- IVF plus Acupuncture 42.5%
Influence of acupuncture on the pregnancy rate in IVF

Pre-transfer points: PC 6, Sp-8 Diji, Liv 3, GV20 Baihui, SP29 guīlai

Post-transfer: ST 36, SP 6, SP10, Li4-inhibiting uterus motility

Auricular: 55-Shen men, 58-Zigong, 22-Neifenmi, 34 Naodian
Reviews: Acupuncture in infertility

Modification of semen quality
(low sperm count and poor motility)

- Siterman S, Andrologia. 2000 Jan;
Fig. 29.1  Main abdominal points used for morning sickness.
Anti-emetic

- Preoperation: Kotani N et al. Preoperative intradermal acupuncture reduces postoperative pain, nausea and vomiting, analgesic requirement, and sympathoadrenal responses.


Anaesthesia 2001 Oct;56(10):927-32
Anti-emetic

  Obstet Gynecol 2001 Feb;97(2):184-8

Chemotherapy-induced nemesis: Shen J et al. Electroacupuncture for control of myeloablative chemotherapy-induced emesis: A randomised controlled trial
  JAMA 2000 Dec 6;284(21):2755-61
Breech Presentation
Overview Breech presentation

Epidemiology: incidence of breech presentation

- Week 30 gestation: 25% of all pregnancies
  Most undergo spontaneous version at 32-34 weeks
- Term: 3-4% of all pregnancies

Types

- Frank Breech (45-50%): Hips flexed; Knees extended
- Complete Breech (10-15%); Hips flexed; Knees flexed
- Footling Breech or Incomplete Breech (35-45%); One or both thighs extended

External cephalic version: Success rate is around 50%-70%
Moxibustion BL-67 Zhiyin

BL-67:

- Optimal time: at the beginning of 34th. Until 37th gestation
- Technique: Moxibustion at BL-67, 15-20 min/d for 10 days

« Huo zu qi dao, shi neng qiu yu »- Golden mirror of medicine

- Scar moxa is the best ???
Mechanism

- Moxa on BL-67
- Increased placental E2
  - Increased myometrial sensitivity
  - Increased myometrial contractility
  - Increased fetal heart rate and increased fetal activity
- adrenocortical stimulation
  - Change in prostaglandin levels
  - Increased myometrial contractility
Literature reviews: acu-moxi-BP

• Cardini F et al  Moxibustion for correction of breech presentation: a randomised controlled trial.

  Subjects: 260 of Primigravidas. Treatment: moxibustion at the 33th week of gestation

  Result: the 35th week of gestation, 98 (75.4%) vs 62 (47.7%)

  JAMA 1998 Nov 11;280(18):1580-4

• Neri I et al  Non-stress test changes during acupuncture plus moxibustion on BL67 point in breech presentation