## Acupuncture in Gynecology and Obstetrics



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# Physiological and pathological characteristics of women

Physiology:

Menstruation, pregnancy, delivery and child-feeding

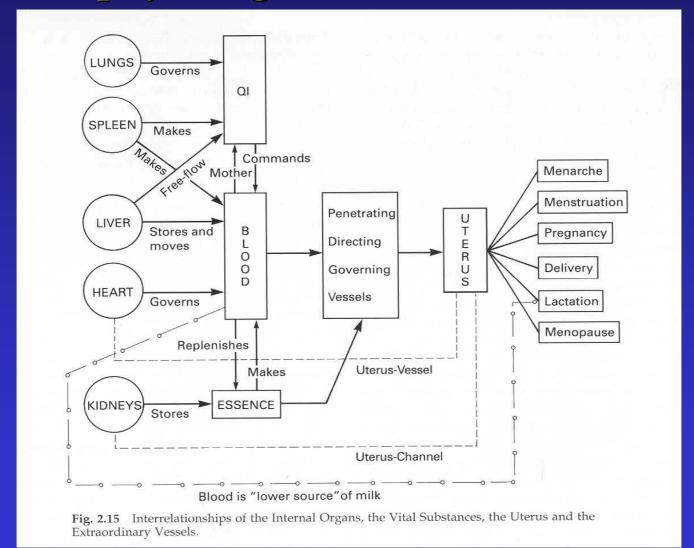
pathology

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



## **Bao Gong – Uterus: Extraordinary**

Uterus: Zi bao, Nu zi bao, Zi zang, Zi chu,

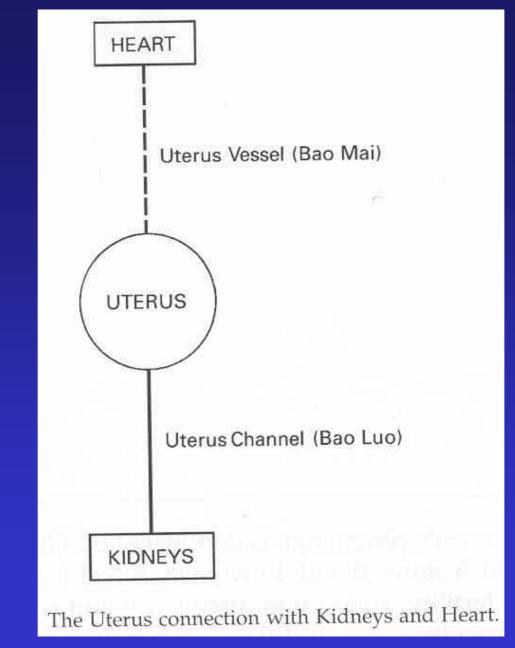
Zi Gong

- Position:
  - Between guan yuan (Ren 4) and qihai (Ren 6)

**zhang jing yue (1563-1640)** 

- 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



## **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.

#### 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-shu ran ye 帝曰: 人 年 老 前 無 子 者, 材力 盡 耶, 將 天 數 然 也?

qi-bo yue nu -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,任脈虚,太冲脈衰少,天癸竭,地道不通, gu xing-huai er wu-zi ye

壞 而 無子也。

## 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 <u>kidney</u> become full,...; at 14 years the <u>Tian gui</u> comes into play, <u>Ren mai</u> circulating strongly (open), <u>Chong mai</u> 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

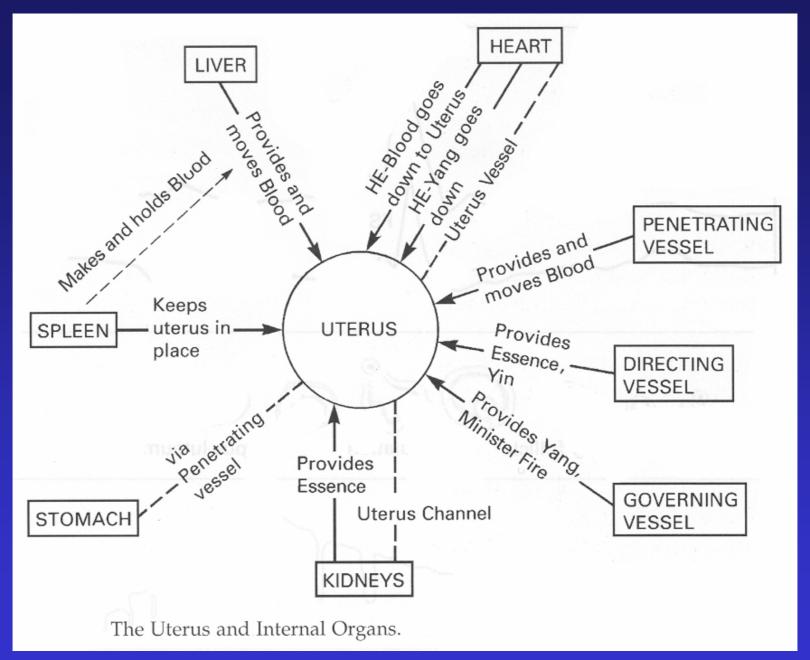
**Ren mai** Sea of yin meridians

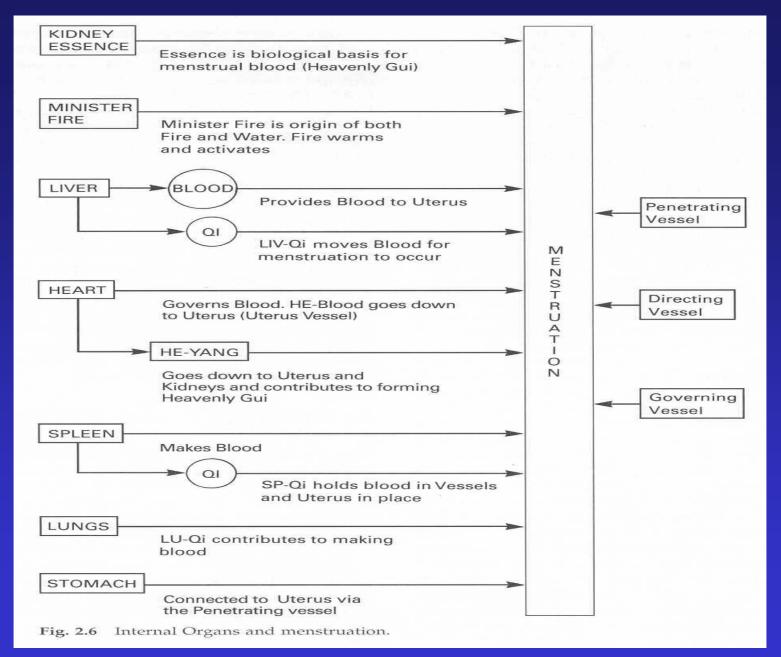
**Du mai** Sea of yang meridians

# Extraordinary meridian

- Du Mai
- Ren Mai
- Chong Mai

The same source Huiyin (Ren-1) (Three branches of one vessel)





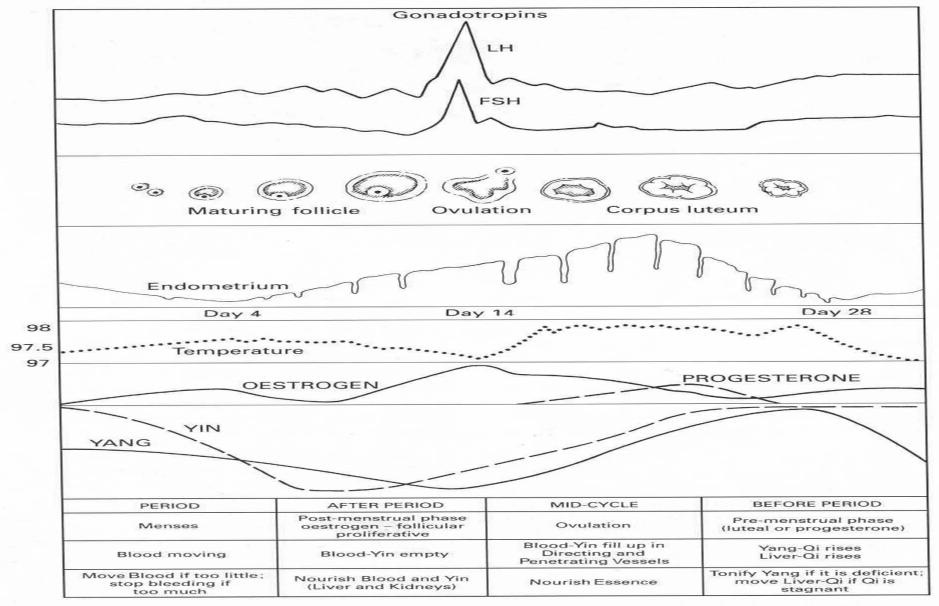


Fig. 2.3 The four phases of the menstrual cycle.

## Four phases of the menstrual cycle

- Menstrual phase: Blood moving, required free flow of liver qi and blood ( move blood fi 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 live-qi if it stagnant

Giovanni Maciocia . Obstet & Gyne in Chinese medicine

## Xue - Blood

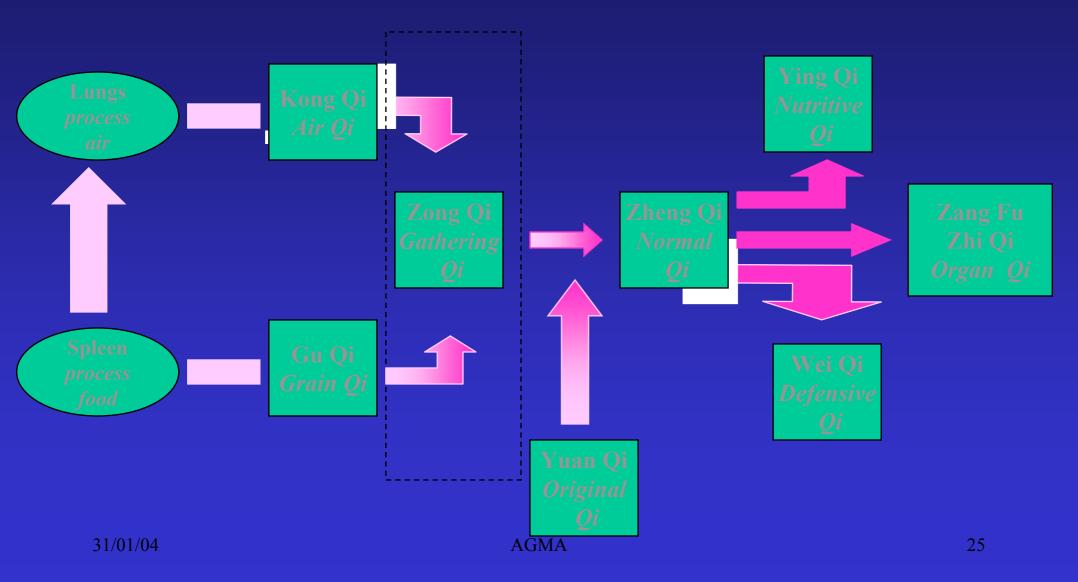
The concept of blood in TCM is not completely the same as it is in Western medicine does. Blood is a vital nutrient substance in the body. It is formed from the combination of essence of food, which derived via digestion and absorption by spleen and stomach, and fluids containing nutrients. Kidney also 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



# Pathological characteristics

#### Cause disease

- Six exogenous pathogenic fators
- Seven emtions
- Improper diet
- Overstrain
- Excessive sexual intercourse
- Incised wound and wound due to insects and animal attack

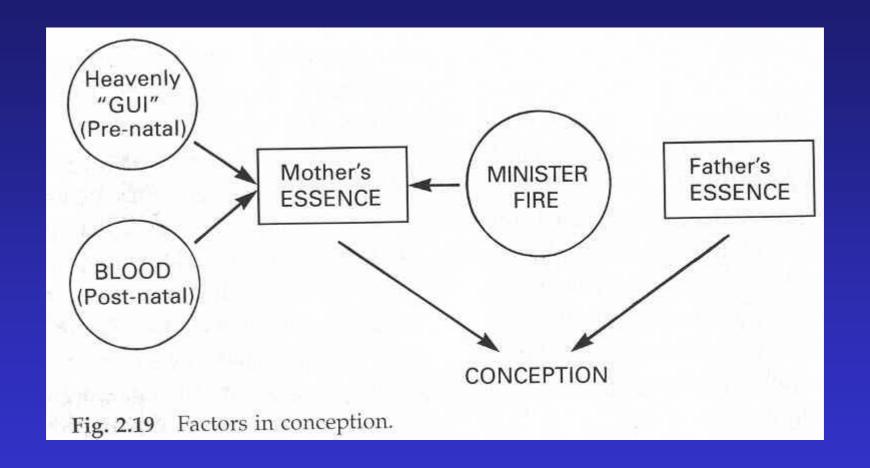
# Pathological characteristics

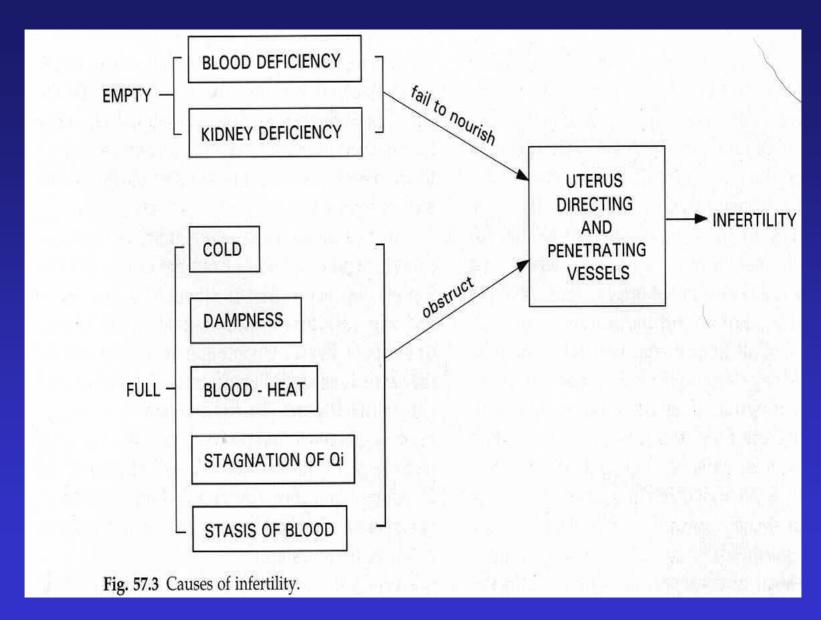
### Pathogenesis

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

# **Infertility**

— The standard <u>medical definition of infertility</u> is the inability of a couple to conceive after 12 months of intercourse without the use of contraception.





### Ovulation induction

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

Acta Obstet General Scand. 2000 Mar;79(3):180-8.

• 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-pituitaryovarian axis.

Acupunct Electrother Res 1997;22(2):97-108

## Ovulation induction

- Chen BY, Yu J. Relationship between blood radioimmunoreactive beta-endorphin and hand skin temperature, during the electroacupuncture induction of ovulation. Acupunct Electrother Res. 1991;16(1-2):1-5.
- Yu J et al: Changes in serum FSH, LH and ovarian follicular growth during Electroacupuncture for induction of ovulation. Zhong Xi Yi Jie He Za Zhi 1989 Apr;9(4):199-202, 195

# 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

Stener-Victorin et al: A prospective randomized study of electroacupuncture versus alfentanil as anaesthesia during **oocyte aspiration** in in-vitro fertilisation.

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%
- Paulus W et al,. in patients who undergo assisted reproduction therapy. Fertil Steril. 2002 Apr;77(4):721-4.

# Influence of acupuncture on the pregnancy rate in IVF

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

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)

- Crimmel AS, J Androl. 2001 Mar-Apr;22(2):173-82. Review
- Siterman SAndrologia. 2000 Jan;
- Siterman Arch Androl. 1997 Sep-Oct;39(2):155-61.
- Urologe A. 1984 Nov;23(6):329-33.
- Crimmel AS et al: Withered Yang: a review of traditional Chinese medical treatment of male infertility and erectile dysfunction
- J Androl 2001 Mar-Apr;22(2):173-82

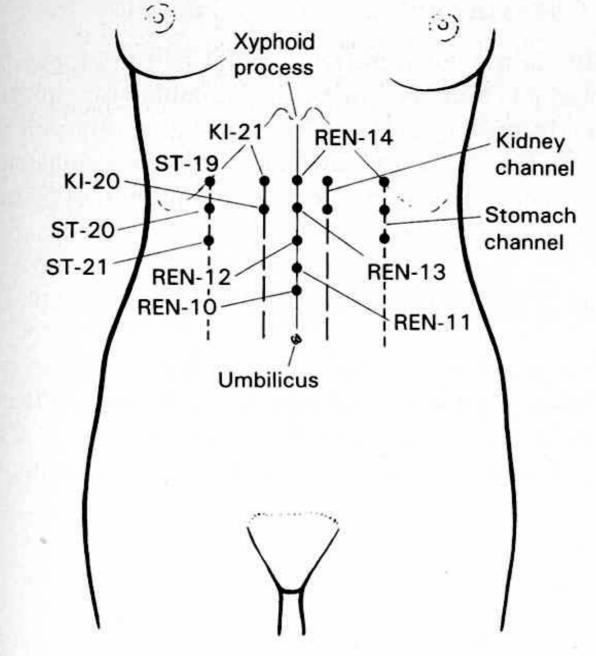


Fig. 29.1 Main abdominal points used for morning sickness.

## Anti-emetic

- Preoperation: Kotani N et al. Preoperative intradermal acupuncture reduces postoperative pain, nausea and vomiting, analgesic requirement, and sympathoadrenal responses
- Anaesthesia: Somri M et al. Acupuncture versus ondansetron in the prevention of postoperative vomiting. A study of children undergoing dental surgery.

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

## Anti-emetic

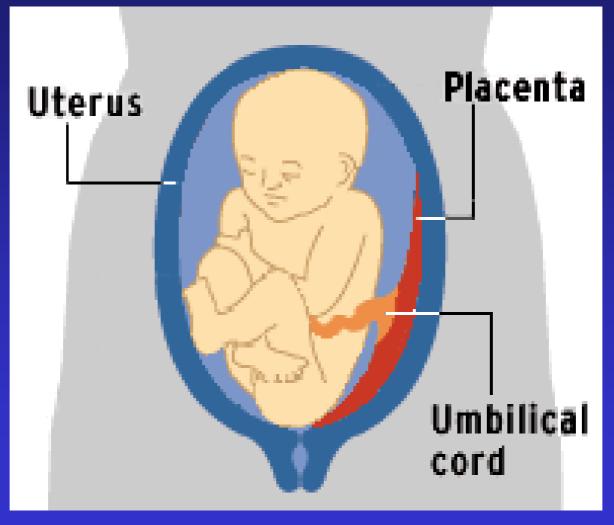
• Pregnancy: Knight B et al. Effect of acupuncture on nausea of pregnancy: a randomised, controlled trial.

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

JAMA2000 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%

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# Moxibustion BL-67 Zhiyin

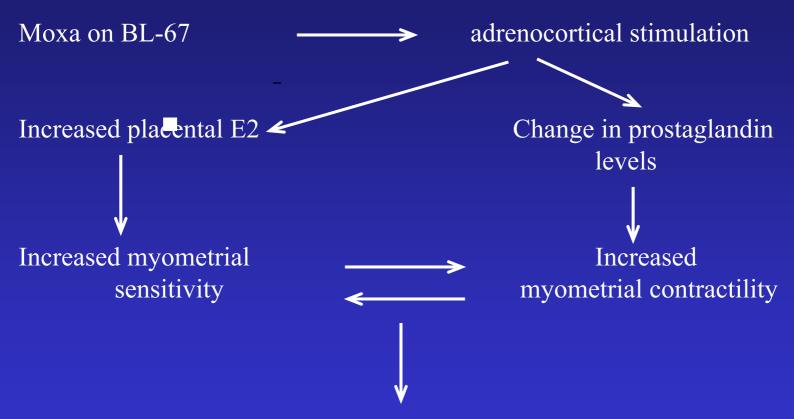
#### BL-67:

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

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

Scar moxa is the best ???

## Mechanism



Increased fetal heart rate and increased fetal activity

### 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

J Soc Gynecol Investig. 2002 May-Jun; 9(3): 158-62