CMPR311

Week 3

Medical Development in the Han Dynasty & Three Kingdoms

Chinese Medicine Department

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Session Contents

- **Ma Wang Dui** (马王堆)

- **Zhang Zhong Jing** (张仲景) &
  - Shang Han Lun 伤寒论
  - Jin Gui Yao Lue 金匮要略

- **Hua Tuo** 华佗
Han Dynasty & Three Kingdoms

- **Han Dynasty 漢 朝 (206 BC-220 /221AD)**
  - The western Han Dynasty 西漢 （206BC-24 AD）
  - Xin: 8-23 AD
  - the Eastern Han Dynasty (25 AD – 220/221 AD)

- **Three Kingdoms 三国时代 (220/221 AD–280 AD)**
Han Dynasty Web-Links

(Students please watch videos below in your own time: pre-class reading or post class review)

- Discovering China - The Han Dynasty-China's First Golden Age
  https://www.youtube.com/watch?v=VS7pKZJ3zPs
- Han dynasty
  https://www.youtube.com/watch?v=56DKcDeCNok
- Han China
  https://www.youtube.com/watch?v=xRlXqGEfke8
- https://www.chinahighlights.com/travelguide/china-history/the-han-dynasty.htm
Han Dynasty-Three Kingdoms period

- The governmental, cultural, and technological accomplishments during the **Han dynasty** laid the benchmark for future dynasties to emulate.
- The famous Silk Road was established during the reign of Han dynasty
  - Papermaking technology was invented by Cai Lun
  - Di Dong Yi and Hun Tian Yi were invented by Zhang Heng, were the world’s earliest designed to record earthquakes
  - First use of negative numbers in the world
- During Han-three kingdoms period, the obvious improvement in agriculture, science, technology and culture, and active schools of thought created favourable conditions for the formation of systematic medical theory.
Ma Wang Dui

(Chinese: 馬(马)王堆; pinyin: Mǎ wáng duī; literally: "King Ma's Mound")

- an archaeological site located in Changsha, China.
- The site was excavated from 1972 to 1974. Most of the artefacts from Ma Wang Dui are displayed at the Hunan Provincial Museum.

*It was called "King Ma's Mound" because it was initially (erroneously) thought to be the tomb of Ma Yin (853–930), a ruler of the Chu kingdom during the Five Dynasties and Ten Kingdoms period.*
Medical books excavated from Ma Wang Dui Tombs

- There were two kinds of medical books excavated from Ma Wang Dui Tombs of the Han dynasty:
  - **Copies on silk**—10 books in total, i.e., *Wu Shi Er Bing Fang (fifty-two diseases and formulae)*, *Yang Sheng Fang (Formulas for Health Presevation)*, *Dao yin Tu (Illustrated Breathing Exercise)*…
  - **Copies on bamboo strips**—200 bamboo strips (4 kinds) were all medical books: i.e., *Shi Wen (Ten Questions)*, *He Yin Yang (Harmonious Yin and Yang)*…

All of those medical classics excavated from Ma Wang Dui furnished the first-hand information about medicine in the pre-Qin dynasty period.
The Ma Wang Dui (馬王堆) manuscripts

Ma Wang Dui tomb was sealed in 168 BC under the Han Dynasty. They include manuscripts of:

- *Yi Jing*
- Two copies of the *Dao De Jing*
- One copy of *Strategies of the Warring States*, and
- Works of *Gan De* (甘德) and *Shi Shen* (石申) (Chinese astronomers)
- *Wu Shi Er Bing Fang* (五十二病方, *Fifty-two Diseases and Formulas*)
○ The *Wu Shi Er Bing Fang* (五十二病方) is an ancient Chinese medical text copied on sheets of silk around 215 BCE (Qin Dynasty). --Author unknown

○ It is a reflection of the real medical level before the western Han dynasty.

○ It is the earliest medical formulary ever found in China, and it already dealt with the idea of diagnosis and treatment based on an overall analysis of symptoms.
Two unearthed objects from Ma Wang Dui

The wall carvings: ancient Chinese exercise

Dao Yin Shu 导引术 (illustrated Breathing exercise) was the book about exercise excavated from Ma Wang Dui
Plate 3.2 *Dao Yin Tu (Illustrated Breathing Exercises)*, unearthed from the Mawangdui Tombs, contains the earliest medical callisthenic performance patterns extant in China.

Wang, ZG. (1999).
Additional resource (research article): Acupuncture techniques recorded in the Tianhui bamboo slips of medicine in the tomb of the Han Dynasty

“...It was discovered that the manipulations of the different needling techniques, such as pulse needling and intermuscular needling, as well as the forms of the needling tools provided the evidences to the Nine Needles recorded in Lingshu (Miraculous Pivot) and the archaeological discovery. There were many acupuncture prescriptions, reflecting the needling methods recorded in Shiji: Canggong Zhuan (Records of the Grand Historian: Biography of CANG Gong) and Suwen: Miuci Lun (Plain Questions: On Contralateral Puncture) as well as Bianque needling chart, the stone portrait of the Han Dynasty. The close combination between the acupuncture needling techniques and the pulse diagnosis indicates the theoretic essence of the meridian medicine at the ancient time.”


Nan Jing, "（难经）" "The Yellow Emperor's Canon of 81 Difficult Issues,"

- One of the most important classics of traditional Chinese medicine (TCM). It seeks to explain and clarify some seemingly unfathomable statements in "The Yellow Emperor's Inner Canon," the earliest surviving text on the theories and practices of TCM, dating back more than 2,300 years.
Nan Jing 難經

- Attributed to Bian Que but probably dates from Han Dynasty
- Considered an explanation of the difficult sections of the Nei Jing.
- Concerned with acupuncture only (no moxa).
- Five Phase & point theory more developed than in Nei Jing
- Structured as 81 questions on specific medical topics arranged in 6 sections
Shen Nong Ben Cao Jing
(Classic of Shen Nong’s Materia Medica)
神农本草经

also known as Classic on the Herbal (Ben Cao Jing) or The Herbal (Ben Cao), is the earliest book on materia media in China, which appeared in about the Qin_Han Period (秦汉) with its authorship unknown.
Plate 3.6 The painting titled Shen Nong was tasting herbs

Wang, ZG. (1999).
Shen Nong Ben Cao Jing
神农本草经

- It was a summery of administration practice for thousands of years before the Qin-Han dynasties, in which the recorded therapeutic effects of the drugs have been testified by long-term TCM clinical practice.

- The original text no longer exists. but is said to have been composed of three volumes containing 365 entries on herbs and their description.
Shen Nong Ben Cao Jing
神农本草经

- It lists 365 and divides them into three grades according to their different properties and effects.
- The book also gives a brief account of pharmacological theories:
  - principal (jun 君), adjuvant (chen臣), assistant (zuo佐) and guide (shi使);
  - harmony in seven emotions (qi qing 七情),
  - four properties of medicinal herbs (si qi 四气)
  - and five tastes of medicinal herbs (wu wei五味).
Hua Tuo 华陀 (c.140–208 or ?-208 A.D.)

Hua Tuo named as Yuanhua, also known as Fu, was an outstanding medical practitioner who lived in the later eastern Han dynasty. His birthday had two different opinions, but it was in 208 A.D. Cao Cao 曹操 killed him according to Hou Han Shu (The book of Later Han Dynasty) and San Guo Zhi (Historical Records of the Three Kingdoms).

*Cao Cao, courtesy name Mengde, was a Chinese warlord and the penultimate Chancellor of the Eastern Han dynasty who rose to great power in the final years of the dynasty.*
Hua Tuo 华陀

Hua Tuo was famed as:

- the Chinese surgical pioneer, making significant strides in anaesthesia, surgery, and acupuncture.
- A famous herbal expert, excellent physician.
- spearheading the practice of laparotomies and organ transplants, using anaesthetics (the first Chinese surgeon).

Hua Tuo had made extremely important contribution to the history of TCM, especially in surgical operations and anaesthesia; hence he has been esteemed as “originator of Surgery”. His chief medical achievements are as follows:
Hua Tuo’s chief medical achievements

- He initiated a general anaesthetic combining wine with a herbal concoction called máfèisàn (麻沸散, lit. "cannabis boil powder"), which was used when performing operations. --The first person in China (also in the world) to use anaesthesia during surgery.

- He paid much attention to physical and hygienic therapies, and originated the five animal-mimicking exercises and health-giving medicines.—played an important role in the history of Chinese physical education and health preservation.

- Rich experience and brilliant skills in disease diagnosis and treatment of acupuncture, moxa and herbal medicine. He discovered “Huatuojiaji” acu-points which are still used today.
Besides being respected for expertise in surgery and anaesthesia, Hua Tuo was famous for his abilities in acupuncture, moxibustion, herbal medicine and medical Daoyin exercises.

He developed the *Wu Qin Xi* (五禽戏; Exercise of the Five Animals) movements of the tiger, deer, bear, ape, and crane.
Research Articles: Hua Tuo

  

  
In-class Group Discussion

- What were the achievements of Hua Tuo in pharmaceutics?
- What was Hua Tuo’s contribution to Acupuncture?
- Analyse the significance and impact of Hua Tuo’s school of thought and work, in the practice of Chinese medicine today.
Zhang Zhongjing 張仲景 (150—219 AD) Han(漢) Dynasty

- also known as Zhang Ji 张机, was from Nanyang, Henan Province.
- One of the most eminent Chinese physicians during the later years of the Han dynasty (Eastern Han dynasty).
- He was respectfully addressed as “Medical Sage” due to his great contribution to the development of TCM.
Shang Han (Za Bing) Lun (傷寒雜病論; "Treatise on Cold Pathogenic and Miscellaneous Diseases").

- Zhang Zhong Jing studied Huang di Nei jing (黄帝内经), collecting many prescriptions as he could, and authored the book Shanghan Zabing Lun

- It is the fundamental text for all traditional herb prescribing. Not only did it contain over 100 effective formulas (many of them still used today), but the text implied a theoretical framework that led to hundreds of books analysing, explaining, and reforming it.

The book was lost in the war not long after he published the book.
Zhang Zhong Jing 張仲景 (150—219 AD)

- Zhang Zhongjing established medication principles and summed up the medicinal experience up until that time and authored the book *Treatise on Febrile and Miscellaneous Disease (Shanghan Zabing Lun, 伤寒杂病论)*, the oldest clinical textbook in the history of medicine, with complete explanations of “theories of traditional Chinese medicine, methods of diagnosis and treatment, prescriptions, and medical herbs.” (lǐ, fǎ, fāng, yào 理, 法, 方, 药).

- Zhang Ji’s advocation on treatments according to syndromes differentiation by *six channels* 六经辩证 and *eight principles* 八钢辨证 has great influences to the development of Chinese medicine afterwards.
Shang Han (Za Bing) Lun (傷寒雜病論);

*Shanghan Zabing Lun* was lost during the war period of the Three Kingdoms; however it was collected and reorganised by:

**Wang Shuhe** (王叔和) from the Jin Dynasty (西晋) & a number of court physicians during the Song Dynasty (宋朝) collected and organised bits of *Shang Han Za Bing Lun* and made it into 2 books:

1. **Shanghan Lun** (傷寒論, "On Cold Damage"):  
2. **Jingui Yaolue** (金櫃要略, "Essential Prescriptions of the Golden Coffer")
Plate 3.7  The photoes of extant Shang Han Za Bing Lun (Treatise on Febrile and Miscellaneous Diseases) and Jin Gui Yao Lue (Synopsis of the Golden Chamber)

Wang, ZG. (1999).
Jinggui Yaolue 金匱要略
“Essential Prescriptions from the Golden Cabinet”

- A classic clinical book of traditional Chinese medicine written by Zhang Zhongjing at the end of the Eastern Han Dynasty and was first published in the Northern Song Dynasty.
Jingui Yaolue 金匱要略

- It covers diseases other than the external contractions dealt with in the Shang Han Lun, and includes lung diseases, water swelling, dissipation-thirst, impediment (bì), summerheat stroke, mounting diseases, and gynecological diseases, etc.

- It is best known for some of the formulas, such as the gynaecological remedy formula (Danggui Shaoyao San) which is today applied to infertility, disorders during pregnancy, prevention of miscarriage, and post-partum weakness.
Altogether there are 269 prescriptions making up the basis for modern clinical practice.
Acupuncture and Moxibustion: Theories of Zhang Zhongjing

- Zhang Zhongjing mainly treated diseases with Chinese herbal medicine, however, acupuncture and moxibustion therapy were mentioned in his book.

- The acupoints mentioned in his books include Fengfu (GV 16), Fengchi (GB 20), Qimen (LR 14), Dazhui (GV 14), Feishu (BL 13), Ganshu (BL 18), Laogong (PC 8), Guanyuan (RN 4) etc.

- The equipments and methods for acupuncture and moxibustion include needle (needling), moxa, fumigation, burning and warming acupuncture.

- Applied combination of acupuncture, moxa and herbs in some diseases treatment.

http://dx.doi.org/10.4236/cm.2012.33020
Plate 2.3 Gold needles unearthed in 1968 from the Tomb of Liu Sheng, Emperor Jing of Zhongshan during the Western Han Dynasty, at Mancheng, Hebei province

Wang, ZG. (1999).
Research Articles

  

  [http://dx.doi.org/10.4236/cm.2012.33020](http://dx.doi.org/10.4236/cm.2012.33020)

- Hua Tuo, forefather of traditional Chinese external medicine
  
Research Articles re:

Shang Han Lun


Main Points:

- Acupuncture for yang syndromes, moxibustion for yin syndromes.
- Huo jiu (fire and moxibustion) contraindications for excess yang and deficient yin syndromes.
- Preventing the occurrence of disease and arresting and curing disease at its initial stage.
- Combining acupuncture, moxibustion and Chinese herbal medicine
Research Articles (cont.)


In-class Group Discussion

- What were the achievements of Zhang Zhongjing in pharmaceutics?
- What was Zhang Zhongjing’s contribution to Acupuncture? How many acu-points were mentioned in Shang Han Lun?
- Analyse the significance and impact of Zhang zhongjin’s school of thought and works, in the practice of Chinese medicine today.
Summary & Discussion

- Summarize this session learning
- Questions?
Main References


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