

Ethnobotany. Lecture 27

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Outline

Traditional systems of herbal medicine

- Basic aspects

- Traditional Chinese medicine (TCM)

- Traditional Indian medicine



Traditional systems of herbal medicine

Basic aspects



Western medicine

- ▶ Developed with the evolution of Western science, based on strict and positive scientific evidence, experiments and statistical analysis
- ▶ For the long time, Western science ignored other branches of human medicine



Main non-western medicines

- ▶ Traditional Chinese medicine (TCM)
- ▶ Ayurveda
- ▶ Traditional African medicine
- ▶ Traditional American medicinal practices



Some general aspects

- ▶ Healing in traditional systems is mostly applicable to minor disorders
- ▶ Chronic and serious disorders often considered to be a “super-natural”
- ▶ Dose is not calculated
- ▶ Too powerful chemicals are not usually used
- ▶ There is a strong, but not absolute correlation between traditional and Western systems



Traditional systems of herbal medicine

Traditional Chinese medicine (TCM)



Traditional Chinese medicine (TCM)

- ▶ Started more than 3,000 BC
- ▶ Based on specific philosophy
- ▶ Uses a large variety of plants, mushrooms, animals (!) and other biological compounds



TCM history

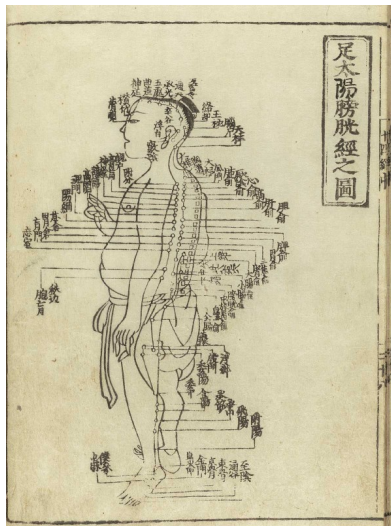
- ▶ Started to develop in relation with Taoism and based on philosophical principle of yin and yang
- ▶ Knowledge transferred from religion (shamans) to philosophers
- ▶ In Han times (200 BC – 200 AD) Zhang Zhongjing invented acupuncture
- ▶ In Min dynasty times (\approx 1550) Li Shizhen produced the herbal encyclopedia Ben Cao Gang Mu (52 volumes)



Zhang Zhongjing (150–219)



Acupuncture map



Li Shizhen, 1518–1593



Ben Cao Gan Mu volumes



TCM concepts

- ▶ Qi (or chi) is a source of life energy (yuan qi)
- ▶ Yin and yang interactions and five elements (heart/fire, liver/wood, spleen/earth, lungs/metal and kidneys/water)
- ▶ Six excesses: wind, cold, summer heat, dampness, dryness and fire
- ▶ Seven emotions (internal causes of diseases): joy, anger, anxiety, concentration, grief, fear, fright



Diagnosis in TCM

- ▶ Based on observation of **external** characters and interview
- ▶ Normally, tongue and pulse are observed, then massage and palpation help to obtain an information



Treatment

- ▶ Purpose is to rectify harmony
- ▶ For every cause, “antidote” with alternative features should be used
- ▶ E.g., for cold TCM uses “warm” herbs as ginger



Qingping market, Guangzhou: plants



Qingping market, Guangzhou: gin seng



Qingping market, Guangzhou: animals



Kampo

- ▶ Japanese variant of TCM, started in ≈ 600 AD
- ▶ Based on acupuncture and herbs
- ▶ Pharmacopoeia contains ≈ 170 herbs and mushrooms



Traditional systems of herbal medicine

Traditional Indian medicine



Ayurveda

- ▶ System of sacred Hindu medicine
- ▶ Started 3,000 BC



Ayurveda principles

- ▶ Every patient is an individual
- ▶ Greatly values subjectivity
- ▶ Similarly to TCM, consider human as microcosm which should be rectified and balanced



Ayurveda basics

- ▶ Five elements (similar to TCM)
- ▶ Three humors of life: vata (air/movement), pitta (fire and water/heat energy), kapha (water and earth/structure)
- ▶ Agni (digestive fire) is essential pitta



Ayurveda diagnosis and treatment

- ▶ Malas (waste products) are important for the diagnosis
- ▶ Diagnosis also involves astrology and karma analysis
- ▶ Treatment is based on the idea of cleaning
- ▶ Among herbal remedies, rasayana plants (among them, there are amla *Emblica officinalis* and ashwagandha *Withania somnifera*) are most useful



Durga bears remedies



Amla, *Phyllanthus officinalis* (Euphorbiaceae)



Unani

- ▶ Close to Ayurveda
- ▶ Urdu (Pakistan and India), Arab and Persian traditional medicine
- ▶ Avicenna (Ibn Sina from contemporary Uzbekistan) established its main principles which went farther to Europe after translation of Arab books



Avicenna (Ibn Sina, 980–1037)



Summary

- ▶ Traditional Chinese medicine and other non-Western system are holistic (wholesome) approaches
- ▶ The goal of traditional healing is to restore a harmony
- ▶ These medicines are based on a extensive using of herbs



For Further Reading



A. Shipunov.

Ethnobotany [Electronic resource].

2011—onwards.

Mode of access:

http://ashipunov.info/shipunov/school/biol_310



Heinrich et al. 2012.

Fundamentals of Pharmacognosy and Phytotherapy.

Churchill Livingstone, Edinburgh.

