The use of Chinese herbal drugs in Islamic medicine

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**ABSTRACT**

This paper investigates some of the ways that Chinese medicine has been transferred to the Western world and to Islamic territories. During the Golden Age of Islam (8th to 13th century CE), the herbal drug trade promoted significant commercial and scientific exchange between China and the Muslim world. Chinese herbal drugs have been described by medieval Muslim medical scholars such as Tabari (870 CE), Rhazes (925 CE), Haly Abbas (982 CE), Avicenna (1037 CE) and Jurjani (1137 CE). The term *al-sin* (the Arabic word for China) is used 46 times in Avicenna’s *Canon of Medicine* in reference to herbal drugs imported from China. Cinnamon (*dar sini*; “Chinese herb”), wild ginger (*asaron*), rhubarb (*rivand-e sini*), nutmeg (*basbasa*), incense tree wood (*ood*), cubeb (*kababe*) and sandalwood (*sandal*) were the most frequently mentioned Chinese herbs in Islamic medical books. There are also multiple similarities between the clinical uses of these herbs in both medical systems. It appears that Chinese herbal drugs were a major component of the exchange of goods and knowledge between the Chinese and the Islamic and later to the Western world amid this era.

**Keywords:** history of medicine, Chinese medicine; Islamic medicine; herbal drugs; Golden Age of Islam


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1 **Introduction**

Medical histories rarely mention the relationship between the medical systems practiced in China and the Islamic world during the Golden Age of Islam (8th–13th century CE)[^1^]. Indeed, the connections between the two cultures and their mutual effects upon one another have rarely been investigated. The present study reviews this exchange of medicinal knowledge accompanying the herbal medicine trade between China and the Islamic world during the Golden Age of Islam. Medicinal literature by prominent Islamic authors, including Imam Sadiq, Rhazes, Hakim Maysari, Joveini, Hasan Ibn-e Noah Bukhari, Haly Abbas and Avicenna, was reviewed to explore written documentation of the use and trade in Chinese herbal drugs. The following questions are proposed: (1) What was the
nature of the herbal medicine trade between China and the Middle East, during the Golden Age of Islam? (2) How did the emergence of Islam affect this connection? (3) Which Islamic medical scholars cited China as a source of herbal medicine? (4) Which Chinese herbal medicines were used by physicians in the Golden Age of Islam? (5) Besides the herbal medicine trade, what other relationships existed between Islamic and Chinese medicine?

2 Ancient trade in herbal drugs

Many medicinal herbs have been known to have various uses throughout human history. In addition to their therapeutic applications, herbs were used as spices, preservatives, perfumes and incense. The literature on this subject most often refers to the trading of such herbs as the “spice trade”. India’s Southwest coast was a major center for the spice trade starting around 3000 BCE.

The incense route was another conduit for the trade of medicinal herbs during this era. This route flourished in the ancient world (7th century BCE to 2nd century CE) as a link between the Mediterranean Sea and Eastern and Southern sources of medicinal herbs and spices. This route stretched from Mediterranean ports to Egypt, through Northeast Africa and Arabia, to India and beyond. Land routes for incense from Southern Arabia to the Mediterranean flourished from 700 through 100 BCE.

Another prominent route was the Silk Road, or Silk Route, which was a series of trade routes and paths developed for trade in silk and other goods among Asian countries as well as the Western world; these trade routes also promoted cultural interaction and exchange among merchants and their countries. It linked traders, merchants, pilgrims, monks, soldiers, nomads and urban dwellers from China to the Mediterranean Sea throughout history. The Silk Route extended more than 6,000 km by land and by sea from its inception during the Han Dynasty. Beside the exchange of goods and culture, the Silk Route was a way for the transmission of disease pandemics such as the Black Death. The trade in medicinal herbs was also popular along this route.

3 Effect of the emergence of Islam on herbal drug trade routes

The religion of Islam arose in 610 CE. In less than one century, its territory had expanded from Northeast Africa to the borders of China. In 751 CE, Tang troops and troops from the Abbasid Caliphate fought in the Talas River valley and the Tang forces were defeated. This defeat, however, did not sever commercial and cultural relations between China and the Caliphate. On the contrary, Chinese artisans, brought to Samarkand after the battle of Talas as prisoners of war, introduced paper-making to Muslims. After this era and for much of the Middle Ages, the Islamic Caliphate monopolized much of the trade conducted along the Silk Road.

4 Islamic scholars citing China as a source of herbal drugs

A number of Muslim scholars have referred to China as a source of herbal drugs. It is important to note that the term “China” in their books differs from modern China. The word is used to refer to all lands and islands to the east of India, including modern Malaysia and Sri Lanka. China is called Chīn, Machīn, al-Sīn, Khata and Khotan in medieval Islamic literature. It was a symbol of a far and out-of-reach land, as the prophet Mohammad says: “Seek for knowledge, even if it is in China”. China also has a symbolic role in Islamic literature as a source of silk, portraiture, perfumes, such as musk, and beautiful statues. It was also known as the source of medicinal herbs. Some important scholars who have referred to Chinese herbal medicines are introduced below.

Imam Jafar Ibn-e Mohammad-e Sadiq (702–765 CE; Medina, Saudi Arabia) was the first Muslim scholar to write about the trade in herbal drugs between nations, in his treatise al-Ahliladj (Murobalan, in Arabic). While discussing how the roots of medicine originate in revelations from God, he says: “How did humans know to make a compound drug from different plants, such as murobalan from India, mastic from Rome, musk from Tibet, cinnamon from China……”

Mohammad-e Zakaria-ye Razi (854–925 CE; Rey, Iran), commonly known as Rhazes, was a Persian philosopher, chemist and physician. He was the chief physician in Rey and Baghdad hospitals. He was known as the father of Islamic medicine. Rhazes wrote a treatise on colic and mentioned cinnamon as a Chinese drug. He says: “There are different types of cinnamon, but the best type is Chinese cinnamon. Another type with lower quality is known as Gharanfol.”

Hakim Maysari (?–936 CE; Khorasan, Iran) was another Muslim medical scholar who discussed the use of Chinese drugs. His work Daneshnameh-ye Pezeshki (Medical Encyclopedia) is the oldest collection of medical poetry in Farsi (Persian language). In one part he writes: “I have heard that it is better to use Chinese mamiran (celadine) in ophthalmic drugs.”

al-Akhawayni Bukhari (Joveini) (?–983 CE; Bukhara, medieval Persia) was a Persian scholar who is best known for his only surviving medical treatise, entitled Hidayat al-Mutallemin Fi al-Tibb (A Scholar’s Guide to Medicine). This was the first medical text written in Farsi Dari (New Persian). In this book he noted the use of...
Chinese cinnamon as a treatment for epileptics: “The Chinese cinnamon and caraway should be added to his diet, lamb should be used as his meat. He should not use garlic, leek and celery in his diet. They may induce his convulsion.”

Hasan Ibn Nohe Bukhari (?–991 CE) composed the first medical dictionary for the Muslim world, *al-Tanvir* (Enlightening). In it, he devoted a chapter to the topic of “How to process Persian rivand (rhubarb) to produce the same effect as Chinese rivand.”

Ali Ibn al-Abbas al-Majusi (Haly Abbas, 930–994 CE) mentioned a Chinese source drug called zabad (a mineral from sea water) in his epic work *Kamil as-Sinan-Tibbiyya (Complete Book of the Art of Medicine)*. He writes: “There are three types of zabad; … the second type is from China and is the best. It is similar to linseed. The third type is from India and is medium sized. Zabed has hot and dry temperament. It dispels the thick phlegm from the joints and knee.”

Ibn Sina (Avicenna, 980–1037 CE) is the most prominent of Persian Muslim physicians. He has written in depth about Chinese drugs in his medical treatises. He has described about 20 drugs “imported from China” or as being of the “Chinese type” in volume 2 of his medical encyclopedia, translated as *The Canon of Medicine*. Avicenna was born near Samarkand, which is located near the southern Silk Route that passed through Bukhara. It is not surprising that he made use of medicine that was imported from China.

### Table 1 Herbs cited in Islamic medical treatises as imported from China

<table>
<thead>
<tr>
<th>English common name</th>
<th>Scientific name</th>
<th>Islamic medicine name</th>
<th>Chinese name</th>
<th>Temperament Chinese/Islamic (4 grade)</th>
<th>Similar clinical indications in Islamic and Chinese medicine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wild ginger</td>
<td>Asarum</td>
<td>اسارون</td>
<td>红参属 (Xixin)</td>
<td>Warm/hot 3</td>
<td>Relieve visceral and joint pain, diuresis</td>
</tr>
<tr>
<td>Nutmeg</td>
<td>Myristica fragrans</td>
<td>سيباسه</td>
<td>肉豆蔻 (Roudoukou)</td>
<td>Warm/hot 2</td>
<td>Astringent, chronic diarrhea and dysentery</td>
</tr>
<tr>
<td>Cinnamomum</td>
<td>Cinnamomum cassia</td>
<td>دارسيني</td>
<td>肉桂 (Rougui)</td>
<td>Hot/hot 3</td>
<td>Dispel internal cold from the stomach and uterus</td>
</tr>
<tr>
<td>Croton</td>
<td>Croton tiglium</td>
<td>دند</td>
<td>巴豆 (Badou)</td>
<td>Hot/hot 4</td>
<td>Edema, ascites</td>
</tr>
<tr>
<td>Myrobalan</td>
<td>Terminalia chebula</td>
<td>اطْعَع</td>
<td>诃子 (Hezi)</td>
<td>Bitter/cold 1</td>
<td>Astringent chronic diarrhea and dysentery</td>
</tr>
<tr>
<td>Camphora</td>
<td>Cinnamomum camphora</td>
<td>كاڤور</td>
<td>棕榈 (Zhangnáo)</td>
<td>Hot/cold 3</td>
<td>Alleviate pain; treat sores and boils, toothache</td>
</tr>
<tr>
<td>Cubeb</td>
<td>Piper cubeba</td>
<td>كایبه</td>
<td>荜澄茄 (Bichengaqi)</td>
<td>Warm/hot 2</td>
<td>Colic and diarrhea</td>
</tr>
<tr>
<td>Incense tree</td>
<td>Aquilaria sinensis</td>
<td>عرد</td>
<td>土沉香 (Chenxiang)</td>
<td>Warm/hot 2</td>
<td>Wheezing, and vomiting</td>
</tr>
<tr>
<td>Santalum</td>
<td>Santalum album</td>
<td>صننل</td>
<td>檀香 (Tanxiang)</td>
<td>Warm/cold 2</td>
<td>Abdominal and chest pain</td>
</tr>
<tr>
<td>Rhubarb</td>
<td>Rheum officinale</td>
<td>رَوْنَد</td>
<td>大黄 (Dahuang)</td>
<td>Cold/hot 2</td>
<td>Hemoptyisis, jaundice</td>
</tr>
<tr>
<td>Alpinia</td>
<td>Alpinia officinarum</td>
<td>خولجان</td>
<td>高良姜 (Gaoliangjiang)</td>
<td>Hot/hot 2</td>
<td>Colic pain</td>
</tr>
</tbody>
</table>

The most important drugs mentioned in the Canon as being imported from China are cinnamon, wild ginger, musk, croton, myrobalan, nutmeg, camphor and cubeb (Table 1).

### 5 Chinese herbs in the present day of the Islamic world

Many of the herbs mentioned here were imported from China throughout the medieval era, and are still on the list of imports from China into Islamic countries. The Islamic countries such as Iran, United Arab Emirates and Turkey also continue to play an important role as a route for the movement of Chinese herbs to the European countries, as in the medieval period. Herbs that are used as spice are among the most popular imported herbal materials from China to these countries; these include cinnamon, ginger, capsicum, nutmeg and aniseed.

### 6 Discussion

The basic concepts taught in medical schools of China and the Islamic world have many similarities. For example, both systems believe that there is a natural power that heals disease and that the physician should aid this power, not oppose it. The concept that the human body is a small model of the universe is also a shared tenet within both...
Islamic and Chinese philosophies of medicine. The four elements that form the basis of Islamic medicine are similar to five elements that form the basis of Chinese medicine. Both systems classified individuals by temperament into phenotypic groups[35].

The use of herbal drugs for specific diseases in both cultures also has multiple similarities. For example, Chinese physicians use musk as an aromatic stimulant to revive those who fall unconscious with a high fever caused by acute infectious diseases. Muslim physicians also stress its value as an aromatic stimulant and describe its tonic effect on the brain and heart. Ginger is considered to be an analgesic in both systems. Cinnamon is used to dispel internal cold in patients with gastrointestinal problems and to promote or induce menstruation for women with amenorrhea and dysmenorrhea in both medical schools[36]. These similarities in the basics of the two systems and the use of similar drugs in response to similar indications suggest the historic connections between these two ancient medical schools.

One influence of Chinese medicinal practices on Muslim medicine may be dated to the translation of a Chinese medical book to Farsi. The Tankusq Nameh (Book of Valuable Information) is also known as Tibb-e ahl-i khata (Medicine of the Chinese) and was translated by a team under the supervision of Khajeh Rashiduddin Fazlollah (1241–1318 CE, Hamedan), a physician and a minister to Mahmud Ghazan, the seventh ruler of the Mongol Ilkhanate in medieval Persia. It appears to be the first, and unfortunately the last, direct translation of a Chinese medical book to a Muslim language. In the introduction to this translation, Khajeh Rashiduddin recorded the motive behind the translation. He says: “It is true that we possess much precise knowledge in our medicine, but Chinese have much knowledge that we do not possess.”

Some similarities between basic and practical concepts of Chinese and Islamic medicine predate this translation by many centuries. The herbal drug trade between China and Western Asian countries, which spread to Islamic territory after the expansion of Islam, appears to be the root of the connections between these two ancient medical schools. Considering the transfer of the Muslim scientific and medical knowledge to the Europe in the medieval era, it seems likely that these exchanges also transferred some influences of Chinese medicine to the west.

7 Conflict of interests

There is no conflict of interest.

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