

## GLIMPSES OF INTERACTION BETWEEN AYURVEDA AND UNANI

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### ABSTRACT

The mutual influence of Ayurveda and Greco-Arabic medicine is a subject poorly studied by medical historians. This study is a preliminary attempt to fill that lacuna. Many evidences suggest that the nosographical, pharmaceutical and therapeutical aspects of Ayurveda and *Unani* were influenced by each other. The importance of further investigations in tracing the subtle aspects of these interactions is emphasised.

### Introduction

Ayurveda and *Unani* are two important medical systems of India. Conceived by ascetics, Ayurveda was propagated and protected largely by the efforts of the rulers of the various princely states. Greco-Arabic medicine, the forerunner of *Unani* accompanied Islam in its peregrinations. *Unani* system was developed by philosophers who were equally well-versed in medical and religious literature. The respectable status of *Unani* was achieved due to the patronage it enjoyed from sultans and nawabs. During the long period of co-existence there was positive interaction between Ayurveda and *Unani*, which has not been well investigated.<sup>1</sup> The present study is a preliminary attempt in this direction.

### Origin of Greco-Arabic medicine

According to historians Arabic medicine, of the pre-Islamic period was of an empirical nature<sup>2</sup>. After the capitulation of Alexandria in 642 A. D., Greek medicine was introduced to the Arab world and it started influencing the native medical practice. The works of Hippocrates and Galen were warmly received by Arab physicians. The erudite scholar Abu Yusuf Ya'qub bin Ishaq al-Kindi (died ca. 871 A. D.) composed more than twenty treatises on medicine. One of them was specifically on Hippocratic medicine. The writings of Abu Bakr Muhommed ibn Zakariyya al-Razi (850-925 A. D.) were also influenced greatly by Greek medical literature<sup>3</sup>.

With the founding of the Abbasid

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caliphate in Baghdad greater attention was paid to Hellenistic medicine. Al-Ma'mun, the most liberal among the Abbasids welcomed intellectuals to his court. In 833 A.D. he founded the famous *Bayt-al-Hikma* (House of wisdom) which had an important influence on the transmission of ancient learning to the Islamic world and to stimulate a burst of intellectual activity<sup>4</sup>. In this prestigious institution scholars were engaged on a full time basis to translate medical works into Arabic. By the 850s almost all of Galen's works were rendered into Arabic<sup>3</sup>. Greco-Arabic medicine was thus born out of a synthesis of Greek and Arab medicine.

#### **Influence of Indian Thought on Greco-Arabic Medicine**

A significant influx of Hindu thought into Arabia took place during the period of the liberal Caliph, Harun al-Rashid (786-809 A.D.). Under his patronage many Sanskrit texts were translated into Arabic. The first Indian to make his mark was Manka, appointed in the Royal Barmecides Hospital in Baghdad. Well-versed in Persian and Arabic, this saintly person translated many Sanskrit medical texts into Arabic. Ibn Dhan and Saleh-bin-Bhela were two other famous Indian physicians of Baghdad<sup>5</sup>.

In *Uyun-al-anba fi tabaqat-al-atibba*, the twelfth book of history of physicians, Ibn Abi Usaybia (died 1270 A.D.) gives a list of some Indian works studied by Arabs. The title of one of them is *Bdan* or *Ndan*. Usaybia mentions that characteristics of 404 diseases are described in this work, without indicating their treatment. This points towards the *Madhavanidana*<sup>6</sup>. Madhava's

treatise is described in a similar manner by the Arab historian Ibn Wadih-al-Yaqubi (850A.D.) also<sup>7</sup>.

Greco-Arabic medicine owes much to pioneers like Ali ibn Sahl Rabban-al-Tabari who became secretary to Prince Mazyar ibn Qarin in the Persian province of Tabaristan. In 850 A.D., he completed the book *Kitab Firdaus al-Hikma* (The Paradise of Wisdom). It contains a mixture of rational and magical observations of nature and concludes with a discussion of Ayurveda. Al-Tabari had depended upon Persian and Arabic translations of the treatises of Carak, Susruta Vagbhata and Madhavakara as he mentions *Jrk, Ssrđ, Ashtanghrdy* and *Ndan*<sup>3,7</sup>. Rosu (1988) states that *Kitab Firdous-al-Hikma* contains details of a *yantra* representing a magic square of the order three, originally found in Vrnda's *Siddhayoga* (900A.D.)<sup>8</sup>

#### **Emergence of Unani Medicine**

Though Muslim presence in India is said to have begun with the military campaign of Mahmud of Ghazna (1014 A.D.), there is evidence suggest that the interaction between Hindus and Muslims began much earlier. Sayyid Sulayman Nadvi remarks that during the caliphate of Umar (636 A.D.), the Governor of Bahrain attacked Thana (Bombay) and later Bharuch and Daybu on the Gujarat coast<sup>9</sup>. Greco-Arabic medicine reached India with these visitors. It is said that the new system of medicine was not easily accepted on account of the temperament of the people and the relatively superior nature of Ayurveda. Therefore, a hybrid of Greco-Arabic medicine and Ayurveda was slowly produced. This new medical system

later came to be known as *Unani tibb* or *Tibbi medicine*<sup>10</sup>.

Under the patronage of the Muslim rulers, scholars translated many Sanskrit texts into Arabic or composed *Unani* treatises borrowing profusely from Ayurveda. Zia Muhammed Mubarak, a courtier of Muhammed Tughlaq (1325-1351 A.D.) composed the recently-discovered *Majma-e-Ziayi* (Collections of Zia) which had a separate chapter on medicine as prescribed by Nagarjuna and other sages of India<sup>10</sup>.

Firus Shah Tughlaq (1351-1388 A.D.) who succeeded Muhammed Tughlaq was himself an accomplished physician. He had a special interest in ophthalmology and is reputed to have designed an eye ointment which had the skin of black snake as an important ingredient<sup>10</sup>. This reminds us of a similar collyrium recommended by Vagbhata in the *uttarstana* of *Astangahrdaya*<sup>11</sup>: Firuz Shah's Court physicians compiled a medical text called *Tibb-e-Firuz Shahi* (Medicine of Firuz Shah) which reportedly describes the treatment of many diseases that were not mentioned in *Al-Qanun* of Avicenna<sup>10</sup>. *Unani* was greatly patronised by Sultan Mahmud Shah of Gujarat (1458-1511 A.D.) who ordered the founding of a special department for translating Arabic and Sanskrit medical works into Persian. Muhammed bin Ismail Asavale Asili translated Vagbhata's *Astangahrdaya*. It is known as *Tibe-e-Mahmudi* (Medicine of Mahmud) or *Shifa-e-Mahmudi* (Cure of Mahmud)<sup>10</sup>.

In 1512 A.D., Behwa bin Khawas Khan, an *amir* of Sikandar Shah Lodhi (1489-1517 A.D.) completed the compi-

lation of a medical text called *Madan-ul-Shifa Sikander Shahi*. This voluminous treatise was based on authoritative Ayurveda texts and the first chapter, like the *sutrasthana* of Sanskrit medical works, discusses the fundamental principles of treatment<sup>10</sup>.

The Deccan disintegrated after the decline of the Bahmani kingdom and five princely states came into existence. The Adil Shahi dynasty of Bijapur was established in 1489 A.D. by Yusuf Adil Shah. During the reign of Ibrahim Adil Shah II, his courtier Muhammed Qasim Hindu Shah alias Firishta composed the medical text, *Dastur-ul-Atibba* or *Ikhtiyarat-e-Qusimi* (1590 A.D.). This work deals with Ayurveda. In the preamble to the book Firishta states that he embarked on this project to introduce Ayurveda to his muslim friends. He was apparently impressed by the well-founded theories of Ayurveda, the practice of which seemed strange at the outset<sup>10</sup>.

Babar (1526-1530 A.D.), the founder of the Moghul dynasty had many great physicians in his court. The most respected of them was Yusuf bin Muhammed bin Yusuf. He gleaned information on hygiene, general principles, diseases, diagnosis and therapeutics from Ayurveda and composed several books. He is credited with the production of a composite and integrated medical system by amalgamating Greco-Arabic and ayurvedic medical thought. The important texts composed by Muhammed bin Yusuf are 1) *Jami-ul-Fawaid* (Collection of Benefits), 2) *Fawaid-ul-Akhyar* (Benefits of the Best), 3) *Qasida fi Hifz-ul-Sihha*, 4) *Riyaz-ul-*

*Adwiya* (Garden of Remedies), 5) *Tibb-e-Yusufi* (Medicine of Yusuf) and 6) *Ilaj-ul-Amraz*<sup>10</sup>.

Aurangzeb's reign (1658-1707 A.D) created an atmosphere conducive to the popularisation of *Unani*<sup>12</sup>. A famous physician of his court, Muhammed Akbar Arzani produced about eight Persian medical compilations. One of them, *Tibb-e-Hindi* (medicine of the Hindus) deals with drugs of the ayurvedic formulary<sup>10</sup>. The Moghul period was marked by the translation of most of the medical texts written in Arabic into Persian, as Persian was the court language of the time. By the time Aurangzeb ascended the throne, all Arabic texts used in *Unani* system were available in Persian. In the nineteenth century many of these works were translated into Urdu, the popular language of the Muslims of northern India<sup>10</sup>.

#### The Influence of Ayurveda on *Unani*

##### 1) Development of *Khamira*

*Khamiras* or medicated spirituous liquors were developed on the lines of *asava* and *arista* of Ayurveda. The Moghul nobility had an aversion to drinking bitter decoctions of drugs and the Persian physicians of Moghul court circumvented this problem by developing *khamiras*, and making the medicines more palatable<sup>13</sup>. *Khamiras* are usually prepared by making decoctions of drugs and reducing the volume by one tenth. To this are added, citric acid (*sat limun*), sodium benzoate (*nitrin bunjawi*) and honey. Some times clarified butter (*ghee*) is also added "to effect lubrication and to destroy dryness." It may be remembered that Sanskrit medical texts advise the *arista* and *asava* to be prepared

in earthen pots, the inside of which are smeared with *ghee* and some times scented with fragrant fumes. *Khamiras* are usually named after the principal ingredient. For example, *Khamira e-abresham* has *abresham mugharaz* (coccons of *Bombyx mori*) as the major ingredient. It is said that the idea of fermenting decoctions and honey was first suggested by the medieval Turkish physician Najab-al-Din-Samarqandi (died 1222 A.D.)<sup>13</sup>. By virtue of its mode of preparation, a *khamira* is preserved for a long time and its absorption into the body is also faster. The rationale behind the selection of drugs is vindicated by the observation that *Khamira-e-Abresham* is proven cardiotoxic medicine<sup>14</sup>.

##### 2) Development of *ma'jun*

Many electuaries or *ma'jun* were also developed by *Unani* physicians. Examples are *ma'jun jograj*, *gujul ma'jun*, *ma'jun-e-Hamal Alawi Khani*, *ma'jun Rah al-Mumimin*, *ma'jan shir dagard wali*, *ma'jun kalkakanaj* etc. Hakim Azad Khan, who composed the text *Muhit-i-Azam* is credited with the designing of many electuaries. Though the *Unani* physicians had taken cue from Ayurveda, they ingeniously formulated many novel *ma'jun* which have few parallels in ayurvedic pharmacy. An example is *Ma'jun Murawwah al-Arwah* which has more than 100 ingredients including such exotic items like camel milk cheese (*mayashutr A'rabi*), dried turtle eggs (*baiza sang pusht khushk kia hua*), mongoose flesh (*ibn irs*), sparrow brain (*maghz sar kunjashk*) etc. A cursory look at the list of ingredients reveals the acceptance into *Unani* of drugs from several countries<sup>13</sup>.

### 3) Development of *kushta*

A *kushta* is the *Unani* equivalent of ayurvedic *bhasma*, which is a calcined mineral or metal. The material to be calcined is ground in the juice of appropriate plant drugs and put in a pit of dried cowdung cakes and set on fire. The recipes of many of the *kushtas* were formulated in India<sup>13</sup>.

### 4) Inclusion of New Plants in Formulary

The *Unani* formulary was enriched by the inclusion of many plants used in Ayurveda. Ali (1990) has identified 210 such plants<sup>15</sup>. In majority of cases the *Unani* names are persianised Sanskrit words. Examples are *Bish* (*Aconitum ferox* wall. ex Ser.) *Wuz* (*Acorus calamus* L.), *Moothoo* (*Cyperus rotundus* L.) etc.

Greco-Arabic Medicine's Influence on Ayurveda.

#### 1) Pulse examination

It is often said that the technique of pulse examination (*nadipariksa*) is a later addition to Ayurveda, possibly from Greco-Arabic medicine<sup>16, 17</sup>. The cardinal evidence for such a line of argument is the observation that *Sarngadhara Samhita* is the first ayurvedic text to mention this topic<sup>18</sup>. However, *Todarananda's Ayurvedasaukhya* quotes *Caraka* and *Vrddhaharita* on this subject. Some manuscripts of *Caraka Samhita* are said to contain passages on *nadipariksa*<sup>19</sup>.

No correlation is made in *Unani* medicine between the characteristics of pulse and the four humours (*akhlat*) i.e., *khun* (blood), *balgham* (phlegm), *safra* (yellow bile) and *sauda* (black bile). Nevertheless, the *hakim* is expected to correlate the characteristics of pulse

with temperament (*mizaj*) and the vital force (*ru*)<sup>17</sup>. Contrary to this, *nadipariksa* of Ayurveda and Tamil medicine take into account the nature of *vata*, *pitta* and *kapha*<sup>18, 20</sup>.

As *nadivijnana* is a part of *saivatantra*, which is of esoteric nature<sup>20</sup>, the ancient knowledge on this occult technique might have been intentionally kept away from the realm of medicine. Many Sanskrit texts on *nadipariksa* state that this is a very secret knowledge "which is obtained with great difficulty even in heaven"<sup>17</sup>. The acceptance of *nadivijnana* from *saivatantra* and its inclusion in Ayurveda was mostly due to the pioneering efforts of scholars of the early medieval period.

A striking parallel to this line of development is to be found in the popularisation of *yoga* as a therapeutic measure. Though the theory of Ayurveda is based on the six schools of philosophy including *yoga*, not even a single Sanskrit medical text advocates its use in therapeutics. The classic works consider *yoga* to be a separate discipline of mystical nature intended to pave the way for attaining liberation from worldly ties (*moksa*). However, for the last 40-50 years it is being taught all over the world primarily for curing diseases<sup>21, 22</sup>. Similarly, as a part of the historical developments in Ayurveda attempts must have been made by medieval scholars to incorporate *nadivijnana* also into Ayurveda.

#### 2) Description of New Disease Entities

##### a) *Snayukaroga*

*Snayukaroga* or dracunculiasis is described for the first time in *Vruda's Siddhayoga*. This disease was already

recognised by Greco-Arabic physicians<sup>1, 23-25</sup>. Arabic physicians repeatedly mentioned the view of the Greek author Soranus (2nd century A.D.) that the "little snakes" or *drakontia* found in the disease were nerves and not animals. Subsequently, this parasitic infestation was called *al-irq-al-madani*. Though the ayurvedic physicians were probably influenced by the opinion of Greco-Arabic authors, they adopted different terminology to describe the disease. Thus the term *snayukaroga* was employed. Trimalla (17th century) later classified it in his *Yogatarangini*, on the basis of *tridosha* doctrine<sup>1, 19</sup>.

b) *Munnatakhyaroga*

This curious entity, which is an affliction of the penis is mentioned for the first time in Samkara's *Vaidyavinodasamhita* of 17th century. The name of the

disease was adapted from Greco-Arabic medicine.

c) *Vardhma*

This disease is said to have a Greek origin and was first mentioned in Vruda's *Siddhayoga*. Sharma is of the opinion that it is *lymphogranuloma venereum*<sup>24</sup>.

3) Inclusion of New Plants in Formulary

As *Unani* medicine became popular in the country, ayurvedic physicians had an opportunity to study the medicinal value of many drugs used by the *hakims*. Consequently, many of these were accepted into the ayurvedic system. A list of some such drugs is given in Table I. The pellitory root, *Anacyclus pyrethrum* D.C., known in Arabic as *aqarqarha*<sup>26</sup> was given several sanskritised names like *akarakarabha*,

TABLE I  
Some drugs which Ayurveda borrowed from *Unani*<sup>19,29</sup>

No.	Latin name	Sanskrit name	Some Ayurveda texts which mention the drug
1	<i>Acacia arabica</i> Willd.	<i>babbula</i>	<i>Rajamartanda, Sodhalanighantu</i>
2	<i>Ambergris</i>	<i>agnijara</i>	<i>Dhanvantarinighantu</i>
		<i>vadavagnimala</i>	<i>Rasaratnasamuccaya</i>
		<i>ambara</i>	<i>Rasarnava</i>
3	<i>Anacyclus pyrethrum</i> DC	<i>akarakarabha</i>	<i>Sarngadhara Samhita</i>
		<i>akarkaraha</i>	<i>Bhavaprakasa, Pakavali</i>
4	<i>Blepharis edulis</i> Pers.	<i>kamavrdhhi</i>	<i>Rajanighantu</i>
5	<i>Cassia augustifolia</i> Vahl.	<i>sanaya</i>	<i>Arkaprakasa</i>
		<i>sanayaki</i>	<i>Siddhabhesajamanimala</i>
6	<i>Hyoscyamus niger</i> L.	<i>parasikayavani</i>	<i>Siddhayoga</i>
		<i>parasikayamanika</i>	<i>Sarngadhara Samhita</i>
7	<i>Lawsonia inermis</i> L.	<i>memdi, mehandi</i>	<i>Arkaprakasa</i>
8	<i>Lepidium sativum</i> L.	<i>candrasura</i>	<i>Bhavaprakasanighantu</i>
9	<i>Papaver somniferum</i> L.	<i>ahipena</i>	<i>Madhavadravyaguna</i>
		<i>aphuka</i>	<i>Gadanigraha</i>
10	<i>Pistacia lentiscus</i> L.	<i>mastagi</i>	<i>Gadahigraha, Pakavali</i>
11	<i>Plantago ovata</i> Forsk.	<i>isvarabola</i>	<i>Siddhabhesajamanimala</i>
12	<i>Quercus infectoria</i> Olivier.	<i>mayaphala</i>	<i>Rajamartanda, Haramekhala</i>
13	<i>Smilax china</i> L.	<i>cobacini</i>	<i>Bhavaprakasa</i>
		<i>covacini</i>	

*akarkarha*, *akallaka*, *akarkara* etc. The Bengali and Marathi, Gujarati, Telugu, Tamil, Kannada and Malayalam names of this plant are respectively *akarkara*, *akarkaro*, *Akkalakara*, *Akkirakaram*, *Akkalakari* and *Akkikkaruka*, suggesting adaptation of the Arabic name<sup>27, 28</sup>. Similarly, *isaphgol* (*Plantago ovata* Forsk.) was named as *isvarabola* and *isadgola*. The use of opium also increased during medieval times<sup>19, 29</sup>.

#### 4) Adoption of New Types of Preparation

Many types of *Unani* preparations like *gulkhand*, *malham* and *sarbat* were accepted by Ayurveda. Krishnarama Bhatta's *Siddhabhesajamanimala* (1896 A.D.) testifies to this<sup>30</sup>.

#### 5) Interest in *Unani*

Scholars of Ayurveda who realised the usefulness of *Unani* medicine made attempts to introduce the system to ayurvedic practitioners. The pioneer in this line was Mahadeva Deva, whose *Hikmatprakasa* (1773 A.D.) described in Sanskrit the principles of *Unani*, properties of drugs and many useful formulae<sup>31</sup>. Mahadeva Deva later wrote another text, *Hikmatpradipa* and both the works were utilised by Mouktika in the composition of *vaidyamuktavali*<sup>32</sup>. Some more texts were composed in modern times. Notable among them are *Unani Siddhayogasamgrah*, *Unani*

*Dravyagunavijnan* and *Unani Dravyagunadars* written in Hindi by Vaidyraj Hakim Daljit Singh<sup>32</sup>.

#### Conclusion

This study provides some evidences of interaction between Ayurveda and Greco-Arabic medicine. Being experimentalists, the Greco-Arabic physicians found it fascinating to study the many facets of the unique medical system they came across in India. As a result of their efforts they were able to accept several positive aspects of Ayurveda without sacrificing the tenets of their own system. Similarly, the ayurvedic physicians also had an opportunity to observe from close quarters the *modus operandi* of *Unani* hakims. Many hospitals, like the one established at Etawah by Nawab Khair-Andesh Khan, where *hakims* and *vaid*s worked side by side helped the latter to assess objectively the utility of *Unani*<sup>10</sup>. Much useful information was thus incorporated into ayurvedic practice.

#### Acknowledgements

The author is grateful to Prof. Sami K. Hamarneh of Smithsonian Institution, Washington, D.C. 20560, U.S.A. for reading the manuscript critically. This study was supported by AVR Educational Foundation of Ayurveda, Coimbatore.

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Fate makes our relatives, choice makes our friends.

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The best doctors in the world are Doctor Diet,  
Doctor Quiet and Doctor Mirth.

\* \* \*

We squander health in search of wealth and then  
squander wealth in search of health.

— JONATHAN SWIFT