

Interaction between Iranian and Indian Medical Knowledge Re-Reading the Manuscript of "Riyadh Alamgiri"



In Iranian medical history, renowned physicians have emerged, some of whom are not well known. Mohammad-Reza Tabib Shirazi is an Iranian physician and chemist, who in the golden age of Iranian history and culture civilization - during the Baburi Empire (Mughal Empire of India) - emigrated to India and there, he created his work called Riyadh Alamgiri. This book is counted as his masterpiece in the field of pharmacology, introducing and identifying simple or compound medications. This article is aimed at introducing the scientific character and work of this physician and pharmacist.

Key words: Mohammad-Reza Tabib-Shirazi, Riyadh Alamgiri, Mughal Empire of India, Aurangzeb, Pharmacists, Physicians, Emigration and Immigration

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Introduction

The interaction of Indian and Iranian civilization has a long history. Historical evidence shows that since a very long time ago, there have been commercial and scientific relations between Iran and India and these relations expanded in the Sasanian Era. According to a report, Khosrow Anushirvan sent Borzuya Tabib to India to get acquainted with Indian medical knowledge. The result of this trip was the translation of the book "Kalila and Demna" (Panchatantra,) into Pahlavi. (Monshi, 1946, pp. 1-3)

Other civilizations, especially in the Sindh area, were influenced by Iranian and Mesopotamian civilizations. (Yari, 2004, pp. 201, 208) With the spread of Islam and the establishment of Muslims in the Sindh area, the region started to communicate with the Muslim scientific centers. (Schimmel, 1994, p. 141) The scientific alliance between these two Eastern civilizations was expanded to Baghdad, the Caliphate Center, since the al-Mansur Abbasi's era with the presence of the faculty of this land. The Iranian scientific center and the Iranians mediated the transfer of Indian science and civilization, especially medical science, to Islam. Indian and Iranian medicine had a long-standing bond. (Bahrami, 2006, pp. 5-34) The presence of Indian physicians in Baghdad is one of the critical factors in sharing Indian-Iranian scientific heritage. The result of Muslim scientific and cultural interaction with India was translating scientific texts from Sanskrit into Arabic. The translation of Sanskrit scientific and literary works began in the Sasanian period, and with the influence of Islam on Iran, these texts were also translated from Pahlavi to Arabic. Many translations were done by Indian physicians and scholars working at the Academy of Jondishapur Hospital. These physicians, in some cases, even presided over Muslim hospitals. For example, Dahashtak was the head of the Jondishapur Scientific-Center and Hospital in the early Islamic period, and Manica was in charge of presiding the Yahya ibn Khalid Barmaki Hospital in Baghdad. (Azari, 1971, pp. 109-149.) The increasing growth of cultural and religious relations between India and the Islamic world can be found in the expansion of the Arabic and Persian languages into the Sindhi language. (Yari, 2004, pp. 201, 208) The process of linguistic interplay can be traced back to the words used. Many spices and herbal remedies originated in Sanskrit have appeared in Pahlavi texts. Spices, like cinnamon, pepper, turmeric, sandals, ginger, and other spices, were also brought to Iran from this land and were used by physicians and chemists. (Ibn Nadim, 1971, p. 330; Ibn Abi Usaybea, 2010, pp. 159-167) Some sources referred to a list of Indian physicians and the texts that they translated and compiled. In the second half of the second century AH, the Brahma dynasty played an important role in transferring Indian texts and works to the center of the Caliphate of Baghdad and translating them. The scientific connection of Indian civilization with the Islamic world continued, and eventually, with the fall of the Abbasid caliphate, the center of communication was transferred to Iran. With the establishment of the Baburi Empire government, relations between Iran and India grew closer, and many Iranian researchers and scholars, including physicians, emigrated to this land after completing their studies. In fact, the court of the kings of India was the center and the refuge of Iranian scholars and researchers, and most of the famous physicians in that land were the physicians who went from Shiraz. (Mir, 1969, pp. 1-5) In the valuable book, The Physicians of the Mongol era, there is a list of Iranian physicians' biographies and the texts that they authored in India. (Chandipoori, 2013, pp. 15-16) Although it is not the subject of this article to



discuss the causes of the migration of Iranian physicians of the Safavid era to India, we can cite a number of political, religious and economic reasons. (Vasegh Abbasi, 2016, pp. 239-263) The echoes of the two Iranian and Indian cultures and civilizations can be found in the works of Iranian scholars in the field of medical science. Biruni, the prominent Iranian scientist, lived in India for some while, recording the wonders of this land in his valuable work, *Tahghigh Malelhind*. The influence of Indian medicine can be found in the valuable works of Muslim physicians, such as *Ferdows al-Hikmah* by Ali Ibn Sahl Rabban Tabari (d. 870 AD), *al-Hawi* by Mohammed ibn Zakaria Razi, and *Khalq al-Janin va Tadbir al-Hablali va al-Moloudin* by Oray ibn Sa'ad Qortobi. In this essay, an attempt is made to introduce and identify a physician from Fars, Mohammad Reza Shirazi, who emigrated to India and compiled his manuscript during the reign of Aurangzeb Aalamgi.

Biography

Riyadh Alamgiri is a medical text in Persian that was written in the twelfth century AH. Riyadh Alamgiri, also called Riyadh, (Shirazi, no date, pp. 3-5) Riyadh al-Anwar, and Riyadh al-Monazir (Monzavi, 2003, p. 3490) was written by Mohammad Reza Tabib Shirazi, the son of Abolfazl known as Soleiman. There is not much known about the author. In the preamble, the author referred to himself as Mohammad Reza Tabib and al-Mutabib. (Figure 1) He seemed to have been one of the Iranian physicians migrating to India who visited the Gurkanian court and penned this book after Aurangzeb Gurkani (1069-1118 AH). (Monzavi, 2003, p. 3490) There is also no report on the exact date of the book, and the name of the scribe.

The author points out in the preface that he composed this book in two Riyadhs. (Shirazi, no date, pp. 41, 38, 14, 113, 120, 90, 82-84) However, only the second Riyadh, which is about pharmacology, is extant today. It can therefore be argued that the recent work was intended to supplement the first one. The book, as described in the preamble and content of the text, was concerned with the introduction of compound drugs that were effective in the treatment of all types of diseases. of course, the author, in addition to listing all compound drugs, elaborated on the quality of the compounds, the reason for compounding, the reason for varying weight of spices (drugs) in the compound and their grade.

According to reviewed manuscripts, the author has discussed the subject of the book and the classification of chapters after the praise and admiration of God. The classification is based on the order of creation, driven by the ideas of physicians who see the whole body as consisting of seven organic limbs: head, chest, abdomen, back, sex organ, two hands and two legs. The author outlines this classification to set forth medications for the treatment of head and neck diseases as well as organs related to this part of the human body, including nose, eyes, and ears and then proposes drugs necessary for each organ. (Figure 1)





Figure 1. Riyadh Alamgiri. Page 1. (Photo is taken by the author)

According to the author, the book has twelve chapters [manzar/riyaz] with the following subjects. (Figures 2 and 3) (Table 1)

موس والموافرة ويساسكى و عمادها فرزو مؤسسهم المنواب ف ينجى الوشيد ولوسط المواقر. بر الفاركيز برم الوائد عنفل وحسال من والدود والرسطين الواقوة أكر بطا و الحرافظة لندشوط ورا والزب ل وزج زفواى الافروالالدفوج تصوري مفرواف كردان كروه ورفو أوا ن واقع فاق م اکتوانا فائل — وفوطورونه گفرمها له وارا کرداس با وای گلیدی برخ فرخص کردار شیط به تا دردارش مراحلات ادالات مودار بردار برای برا اعزاد داگر و دا فرصور بردارش وترف فدول غامد زعر تحذي في كالمقارض كم مرتبي في لما مواني الا ن مورسية سلامة كوسكنددان تغنفه فهواده معزوا شدو فواذه وكراب شرومنود فواز لوصا خرافس لطام بالش مزنش يوري المريودت ودهائت مستركز توثيث وثوافعه وخداخه أناري وأثرا فيأثن الدور بالدوران وإفال ورب لقرضعه وفوت ويوالا والمضفر فشرب ووسفنر فأرا وخرفغ كدام ومركرون مرفغول يم توز فدام في مهر في جدوم وروم بالدويمة صفر ونزع أب وكرفندل دروكم يكن والفاغ إلغا وفراندان والان كدر وكرب صلامه خفرها بالمية تقدولة كمثر دنجه المرابغ المعطيب كالمتبارضاف كالادركر يداني بشدون كرعدار كرديف ابت تتوقيل عداس غردة بشقار ويعد صوارات مرة ويروفنون وميسر فروي بهرمون وكولفه أيامه ولينان بعراب والأكام المجرفي جمعت درمات دردوارد ومراحظان وهجروارد والاب أدب برطوض درحابرواعكا ويأوا كموندات أرساديان وتأثير ويجه في مونو والدوارات أميال في الميلا استلامت تركيف ووغاله للغرورات مخرسته ويرشون بالميلوريث في مغسره وفرغ والمؤل لك الأله كالمت مراحد فع إطراع و وكذا وأرب و مراسة كالمفسري الماميراني منسردد وكري تخيفا أرصول عوريث فإنقيهما في منسود و ديري مخفظ أرصول موزيم كصله بمف دفعاب بلوان مركبات كي زادار بستعايا داده هر وكمب خواج لادم كم اجتر يجر

نبغ معادوكر ألحق أمام ترسولها أوه أن تأوران تعاول إدارة باد وتوقع إصفاره وتوقية النامج أفرارا يومكن توارك مثرار في معارضه ما والدكة الرّزاء بزور ويولوت بالموقع في ولانها كإسوال كذا ورحز زلاخور فواا خرار وصوحه واشددان تضغر فهادات في أولار الخذة شصالى ويصغم على مراكة ووأبال صفورة فورة فضغم فواورث لس والفرهة بعلافضود نومخذ البعر منطوب فلفاي رشاطط صار ولفذ باستنكات ورعلاج در ودرياني ووالى نع مجذرك فورت وواقي تسود والذخ مندع شعرى فلأشاج أعبنوا وفيضلا والدورب وثوث فذالت الدور لوبا اخرار فارتضوه والمرات وخود وكورا فدو الغرور كوفاع المتراك بركم لذان بضوي مددالى كه وبالعفر وكم بصدا مفرار وترضي موهر بري موسوع في كا ا بن عصفع منابح عمل من تتجروه لصراح كمان إنسرة كرمض لالمدوم الدورنسورة النضو لوكسة. المرافز المرابع عمل من عمل منسان ومنا لولون ما وبا خيارا زويش ديستر وعرض مرافعه! والأرشان لديمني فوضو ورم فروز فيولده ويمنق سرد كمدمه المرثمان مفقات فيؤد والمت والمرادات المفار فاعبد تفح ترصوران للديه العاليس لين معارضه سريط والدائي وسلور صامع مرودا اعبار فرود والمثل جروه والمال من والدور من ودولدو مروع فركال دور غنجا كدود يرتصوده ولادران عنونو ووجداذاب منوكر يطب ك لدوم وروضت الدافي الراف كى الفرومورية عمال صود وإرشون كما المواد والمرافي وتبرين كنسدة وركب المغرا وزان وال خدع منوب عاصلا وتصام وكريت بنع وارواتها رون وفون ورما فنن كبار بازا به لون قوت وي مخطط ددار دو شر مخطط ف ترد وقية جرترد سرطوا في منصول الخدوف المغروف المرافق المدائة دوب مثل خلاصم بازيار وابريخ شامرت لصليع ووفع عاد وقدور إيا عبار وخ خراسك لاصور تعرضونى بالمرات ودعن صديا احبار كراب زكر ددات ورطودر إكه باخماع

Figure 2. Riyadh Alamgiri. Pages 2-3. (Photo is taken by the author)

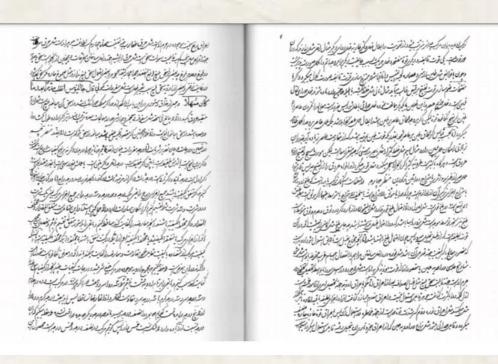


Figure 3. Riyadh Alamgir i.Page 4-5. (Photo is taken by the author)

Table 1: The twelve chapters of the book	Rivadh Alamgiri
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No	Title of chapters		Title of chapters
1	the requirements of the spice compounding	7	the second of seven limbs (chest)
2	weight difference	8	the third of seven limbs
3	perfect compounding	9	the fourth of seven limbs (back diseases)
4	determining the ingredients of the perfect compound	10	the treatment of the fifth of seven organs
5	determining the grades and application of sherbet (syrup)	11	the sixth of seven limbs
6	simple and compound drugs used for the first of seven limbs [head]	12	the seventh of the seven limbs

Monzawi offers another report on the content of this manuscript. According to him, this work comprises five Riyadhs, of which only two Riyadhs are available. As noted by him, the first Riyadh deals with preserving health and well-being, which is written in four *chamans*. The first *chaman* in eight *nakhls*; the second *chaman* consists of nine *golbons*; the third *chaman* is about the treatment of people from the birth to the end of life in five *ghates*, and the fourth *chaman* deals with the knowledge and treatment of unbalanced humours in eight *nakhls*. In explaining the titles of chapters in this manuscript, Monazwi argues that the seventh chapter is about treating the third of the seven limbs (the stomach), but the author does not mention the subject of the eleventh chapter. In contrast, he points twelfth chapter is about the seven limbs. (Monzavi, 2003, p. 3490)

In part of Riyadth Amalgiri, the views and quotes of Greek, Syriac, Indian, Roman, Islamic, and a few other anonymous physicians have been explained (Figure 4). They are as follows: Galen, Hippocrates, Rufus, Orbasias, Dioscorides, Bolos or Folos, Orchaganis, Filigrios, (Shirazi, no date, pp. 26, 47, 322, 343) Hermes, (pp. 284, 377) Agloghan, (p. 328) Felinas, (p. 360) Antilles, (p. 366) Aaron [Aaron Eskandarani] (p. 189, 248,

366), Qusta [Qusta ibn Luqa], (p. 296) Alexander, (p. 52) Hunayn [Hunayn ibn Isaac], (pp. 255, 340) Masarjawaih [Masarjis], (pp. 189, 323) Baghdadi, (p. 185) Ayub [Ayub al-Rahawi], (p. 387) Simon, (pp. 322, 334) Yahya ibn Sarafyun, (pp. 11, 48-49, 81) al-Saher, (pp. 50, 268) ibn Mas'awiyyah, (pp. 50, 268) Tiazuq, (p. 51) Tabari [ibn Rabban Tabari], (pp. 11, 147, 251) Muhammad ibn Zakaria Razi, (pp. 50, 268) Abolfazl Muhammad ibn Yahya, (p. 10) Abolfazl Ahmad Baladi, Masih (pp. 12, 47, 55, 279, 387), Abu'li Daqaq, (p. 119) Sahib Taqwim, (p. 117) Ali ibn Abbas [Mahbus Ahwazi] (p. 195), Amin al-Dole, (p. 196) Thābit ibn Qurra, (pp. 77, 207) Sheikh Hall [an Indian physician] (p. 96, 197); Hakim Emadeddin, (p. 214) Hakim Raknah [an Indian physician], Muskiyyah [Abu al-Muskiyyah], (p. 218) Abi Nasr, (p. 240) Razi al-Sa'rifi, (p. 281) Yahya ibn Meymoun, (p. 302) Abou Mansour, (p. 320) ibn al-Baitar, (p. 361) Yahya ibn Khalid, (p. 371) al-Qalanisi, (p. 365) and Qawm al-Din (p. 368)

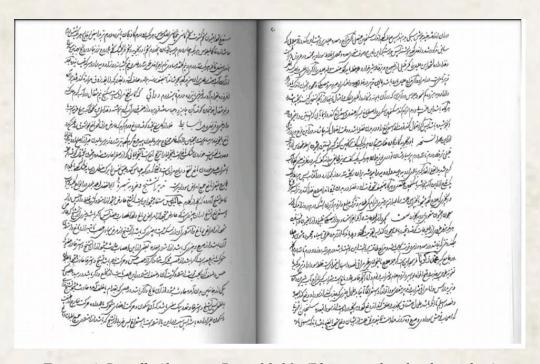


Figure 4. Riyadh Alamgiri. Page 30-31. (Photo is taken by the author)

The author, while quoting the views and attitudes of anonymous figures, uses certain phrases, like, "as said by the Sheikh", "according to the experts", "as claimed by professionals". (pp. 247, 277), "the qualified".

It is noteworthy that the author, in some cases, referred to ibn Masawaiyh as Yahya ibn Masawaiyh and Yahya. (pp. 101, 136, 266) Moreover, he referred to Muhammad ibn Zakaria (p.114) Razi as ibn al-Zakaria, (pp. 276, 256, 176) Zakaria and Razi. (p. 78) As for Thābit ibn Qurra, (p. 207), the author mentioned his name as Qurra ibn Thabit, which appeared to be a scribe's mistake. In addition, the author, while quoting some subjects, cited several medical books, including *Kabir* by Razi Hawi Kabir [*Al-Hawi* by Razi], (p.89) *Al-Jamie al-Kabir* [*Jamie al-Kabir* by Razi?], (p. 308) *Teib al-Masakin* by Galen, (p. 77), the first article by Qatakhans Galen, (p. 72) Khamseh by Miamir Jalinus, (pp. 340, 385) Fi al-Miamir [Galen], (p. 136) Qrabadyn ibn Srafion, (p. 312)

Ibizimia, (p. 343) Taghadome al-Marefat by Hippocrates, Mofradat by Ibn Bittar, (p. 176) Qorabadin Shapur, (p. 220) and al-Tamam wa Al-Kamal by Masawaiyh, (p. 101) Zakhire by Thabit Qurra, (p. 77) Moalejat-al-Boghratiya by Ahmad Tabari (d. 4thcentury AH). (p. 71,38)

The therapeutic procedures outlined in the book include Sa'out¹, Qotur², Laoogh³, Haghna, Tabikh, Sofuf⁴, and Tala⁵. Besides, the author also discussed Talim, Tabsareh, and al-Basayet, to offer further information to the reader. (Figure 5)

- 1- Sniffing
- 2- The liquid dropped in ears or other organs.
- 3- It is a liquid more diluted than a potion.
- 4- Dry and ground drug.
- 5- A diluted liquid that is rubbed on limbs

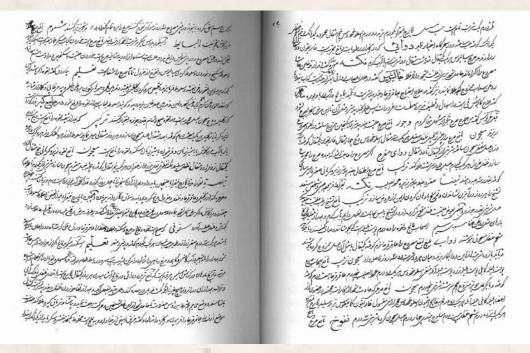


Figure 5. Riyadh Alamgiri. Page 36-37. (Photo is taken by the author)

As mentioned earlier, the book is about pharmacology, but the author did not restrict the book to a simple listing of the drugs. Rather, he first presented a brief description of the diseases and their causes and then prescribed the medicine based on the cause of the disease. (Shirazi, no date, p. 10-66)

One of the highlights of Riyadh Alamgiri is the brief information offered by the author about the activities of some medical centers and hospitals. In one case, he quotes a drug from Thabit ibn Qurra called *Mahre*, which has been widely used in Marv hospital. (Shirazi, no date, pp. 75-78)

Physical features

There are several copies of this work in Iranian libraries (Malek, Tehran University of Medical Sciences, Library of Tehran Parliament, and Astan Masoumieh Library of Qom).



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(Beig Babapour, 2014, pp. 1731-1728) The version used in this paper is Ver. 118 preserved at the library of the University of Tehran.

Conclusion

With the rise of the Safavids and the expansion of scientific and political relations between Iran and India, many Iranian scholars and physicians emigrated to India. Mohammad Reza Tabib Shirazi was one of the anonymous physicians of the twelfth century AH (18th Century AD) AD, who was active in India and the Mughal Empire court of India (Baburi). He wrote his work, Riyadh or Al-Anwar, in this sermon and the name of Aurangzeb. Although this manuscript was written to introduce and synthesize simple and compound medicaments and is now classified as a book in the field of pharmacy and pharmacology, it contains information on the pathology and understanding of the various causes and treatments of different diseases. Writing medical works and texts in the Persian language in India and transmitting synovial medicine to this land, Tabib Shirazi, also, played a critical role in the development of Persian language and literature in that land.

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