

History of Medicine in Iran

Mirza Ali Hamedani: An Influential Physician in the Qajar Period, Iran

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The knowledge of medicine underwent a revolution in the Qajar period, especially during the reign of Naser al-Din Shah Qajar (1831–1896 AD). The dispatch of students to Europe, establishment of Dar ul-Funun, Hafez al-Seheh Assembly, and clinics, entrance of European teachers and physicians to Iran, approval of medical rules by the parliament, introduction of a new therapeutic style, and translation of medical textbooks into Persian were some of the changes that occurred during this period. As a result, modern medicine influenced the Iranian-Islamic traditional medicine. An educated Iranian physician, Mirza Ali Doctor Hamedani was one of the physicians of this period, who traveled to France, studied the European medicine and considerably contributed to the evolution of the modern medicine along the traditional medicine. The present manuscript describes the scientific personality and contributions of this physician to the science of medicine.

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Introduction

As a result of the relations between Iran and foreign countries, which started during the reign of Fath-Ali Shah Qajar, (1772–1843 AD), attention was gradually directed to modern sciences in Iran, and the defeat of Iran by the Russia revealed this trend. During that period, Abbas Mirza, (1789–1833AD) the crown prince of Persia, realized the fact and tried to institute new scientific and military reforms.¹

In the Qajar era, medicine was in a miserable and poor condition. Unfamiliarity with the modern medicine, intervention of laymen in medical services, absence of specialized physicians and hygienic facilities, spread of epidemics and child mortality, and most importantly, the prevalence of superstitions and folk belief in medicine can partially reflect the medical conditions of that period.² Abbas Mirza and his knowledgeable minister, Ghaem Magham Farahani tried to improve health and medical conditions due to the high demand of Iranian society for experienced physicians and specialists.

Following the initial wars between Iran and Russia (1803–1813 AD), Mirza Bozorg Ghaem Magham, Abbas Mirza's chancellor, sent a number of students to Europe to study new sciences. The students were sent to Europe to study chemistry, medicine, natural knowledge, history, artillery, and smithery.¹

To clarify the reason for choosing medical sciences as the first Iranian educational course in Europe, we can point to the presence of European doctors in Iran and the necessity

to prevent their participation in political affairs and reduce their awareness of important political and military issues.¹

Following the return of the educated students to Iran, the school of medicine was founded around 1820 AD. Although the European sciences and customs had been introduced to Iran three decades before Naser al-Din Shah's era and prior to the establishment of Dar ul-Funun, medicine was still being taught using traditional teaching methods.³

Establishment of Dar ul-Funun (literally House of Techniques) was a turning point in the history of medicine, since medical students such as Mirza Ali Naqi Hahim al-Mamalik, Mirza Reza Khan Aliabadi, Mirza Mohammad Hossein Khan Afshar, Mirza Agha Bozrg Navab, Mirza Ahmad Garousi, Mirza Hossein Khan Azad, Sheikh Jalil Esfahani, Mirza Abd al-Wahhab Khan Ghaffari (Fakhr al-Ateba) and Mirza Kazim Mahallati returned to Iran after graduating in medical sciences in Europe, and made a great contribution to promotion of European medicine in Iran.⁴

According to Tafreshi, a number of historians describe Naser al-Din Shah's era as a new age due to the spread of different sciences including medicine.⁵

Mirza Ali Doctor Hamedani was one of the Qajar physicians dispatched to Europe to learn modern medicine. After returning to Iran, he started teaching modern medicine in Dar ul-Funun and made considerable contributions to the science of medicine.

This paper aims to review the life and contributions of Mirza Ali to evolution of medical science in Iran.

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The Chief of Physicians (Raies Al-atebba)

Dr. Ali Khan ibn Zeyn ul-Abedin Hamedani, known as Mirza Ali Doctor and the Chief of Physicians, was one of the physicians and scientists of Naser al-Din Shah's era. Most of the Qajar authors have not mentioned his name except for Mohammad Hassan Khan Etemad-ol-Saltaneh, who has described his life in his works.⁶ He was born in Hamedan around 1845 and had a professional industrial career from the beginning.^{2,7,8}

However, he provided his brief biography in the introduction section of some of his works such as *Amraz Asabanieh*. He was an artisan early in his life.^{7,8} Ali Khan ibn Zeyn ol-Abedin learned the religious sciences during his childhood and learned Arabic language from his uncle. Afterwards, he studied the mathematical, religious and natural sciences, and then turned to medicine and acquired expertise on drugs and spices.

In the introduction to his "*Amraz Asabanieh*", Mirza Ali Doctor put a brief description of his education:

*"I learned Arabic language, mathematics, and natural sciences Afterwards interested in medicine. I studied modern medicine in Dar al-Funun for a short time, after which I was privileged to study traditional and modern medicine. Therefore, I was appointed the chancellor of Kamran Mirza, and I stopped studying medicine to learn French during that period. I was dispatched to France by the government to complete my knowledge of medicine, surgery, and dissection. I gained my Ph.D. degree and after returning to Tehran, I was appointed professor of medicine in Dar ul-Funun."*⁹

According to the author, following the establishment of Dar ul-Funun, Mirza Ali traveled from Hamedan to Tehran to learn modern medicine, and started teaching traditional and modern medicine in Dar ul-Funun. Meanwhile, he not only was Kamran Mirza's special physician, the crown prince, but also was Amir Kabir's special physician for a while (Figures 1 and 2).¹⁰

After learning the basics of medicine in Iran, Ali Mirza traveled to Paris during the reign of Naser al-Din Shah Qajar (1848–1859 AD) to continue education and achieve absolute mastery of medicine, surgery, and dissection. He

graduated from the school of medicine in Paris and obtained his Ph.D. and Medical Degrees.^{6,7,9} In his *Mer'at al-Baladan*, Etemad-ol-Saltaneh described Ali Mirza's trip to Europe for studying medicine as one of the notable incidents of the year 1869 AD.¹⁰

Etemad al-Saltanah in his work, *Merat al-Boldan*, refers to Mirza Ali's visit to Europe for studying medical sciences in 1869.¹⁰ He also studied ophthalmology in Paris. According to Nasser-al-Din Shah's travelogue of Paris, he called for a Polish ophthalmologist named Glashovsky to examine and treat his eyes. Mirza Ali Hamedani was one of his students whose knowledge and expertise in ophthalmology was praised by the Polish doctor.¹²

After returning from Europe in 1877 AD, he taught modern medicine in Dar ul-Funun, and following the death of Dr. Mirza Reza, he was appointed professor of western medicine in this school.^{7,9} According to a report, by the year 1888, Dar al-Fonoun had only one teacher in European medicine, Mirza Ali the Doctor. Since that year, other doctors also started their career at this center.¹³ In 1882, Mirza Ali was selected as Naser al-Din Shah Qajar's special doctor, hence his nickname was "Motamed Al-ateba".¹

The nicknames and titles given to Mirza Ali during his presence in Naser al-Din Shah Qajar's court reflect his position and progress in medicine. As stated, he started teaching traditional and modern medicine in Dar ul-Funun in 1882 AD, and he was appointed professor of medicine in this school in about 1886 AD.¹⁴ Muhammad Hassan Khan Etemad-ol-Saltaneh introduced him as the professor of foreign medicine in Dar ul-Funun. Given that Mirza Ali was one of the close friends of Mirza Kamran, the Minister of War and the crown prince, and he was his special doctor from 1882 to 1886 AD, after death of Mirza Seyyed Razi Semnani, who was the chief of physicians, Mirza Ali succeeded him by taking the "Chief of Physicians" title.^{1,6,8,9} Mirza Ali Doctor had this title until 1890 AD when he was succeeded by Loqman ul-Molk, the son of Filsuf al-Doleh.¹ The social and professional position of Mirza Ali in the court brought about the envy and jealousy in the rivals. When the Hafez al-Seheh Assembly Association (which was affiliated



میرزا علی دکتر، رئیس الأطباء (همدانی)

Figure 1. Mirza Ali Hamedani (Painting of Abu-Torab Ghaffari Kashani (1863–1889 AH), Painter and Painter of Naser-al-Din Shah's Period).¹¹



Figure 2. Mirza Ali Hamedni and His Students (Painting of Abu-Torab Ghaffari Kashani (1863–1889 AH), Painter and Painter of Naser-al-Din Shah's Period).¹¹

with Dar al-Funun) was formed to prevent the outbreak of contagious diseases such as cholera, plague, and smallpox, Mirza Ali joined this association along with other Iranian and foreign physicians.¹⁵

Mirza Ali, the Chief of Physicians, penned and translated medical textbooks together with Khalil Khan Thaqafi, at the command of Etezado-ol-Saltaneh (the minister of sciences and industries). He translated the works of English and French physicians into Persian to be used in Dar ul-Funun.^{8,9,10}

These penned and translated works were mainly dedicated to gynecologic diseases, children's diseases, neural diseases, and dissection. The existing works of the Chief of Physicians are listed hereunder.

- Tashrih al-Bashar, (Autopsy) two volumes, 2nd volume, Anvar Naserieh, Tabriz, 1856
- Javaher al-Hekmah, 1881 AD¹⁶; Moshar presented another list of the Persian textbooks and introduced this book as "Javaher al-Hekmah al-Naserieh".¹⁶ This manuscript is about pathology.¹⁷
- Al-Vajizeh fi Davari Al-Dam va Al-Tasharo'at Al-Mot'ealeqeh.¹⁸ However, the medical books authored by Mirza Ali are listed in the following.
- Ehya al-Atfal Mozafari, translated from French to Persian. This work is dedicated to fetal care during and following pregnancy. It was one of the very first translated works on pediatrics, which has been one of the classic textbooks in this field for a long time.^{8,19}
- Amraz Asabanieh by Kreisel in 1880: The ninth volume of this book is dedicated to neural diseases. Several translations of this book are available, and one of the versions was translated by Mirza Ali Khan, the son of Zayn al-Abidin Hamedani.^{16,20}
- Javaher al-Tashrih (Anatomy), 1888.
- Ziya al-Oyun: It is about ophthalmology which was translated from French to Persian.¹⁶

In the collection of works of Hamedani, there is a book titled "Ahya' al-Atafal Muzzaffari" (Revitalizing the Muzzaffari Children), which as its name suggests, is presented to Muzaffar al-Din Shah (1863–1907). This is a specialized work in the field of pediatric medicine which topics such as pregnancy, infant growth, lactation, children's common diseases and their treatments are discussed. In the introduction to the book, the author states that the purpose of the book is to prevent child mortality and treat children's diseases. "Most of our children die from birth to weaning".¹⁹ In fact, this work is a summary of seven books written on children's diseases in French and English. After returning from France, Mirza Ali Hamedani divided it into two general headings on maintaining the health of infants and children's diseases.² Ahya' al-Atafal which is concerned with taking care of the fetus during pregnancy and after childbirth is among the first translated works in pediatrics and has been used as a classic textbook.^{8,19} Although it cannot be concluded that Mirza Ali is the first Iranian physician who has written a definitive book in the field of pediatrics, his book provides a complete and comprehensive view on the subject and makes it distinctive and seminal.

The scientific titles and positions of the Chief of Physicians show his valuable contributions to the evolution of medicine in Qajar era. He not only was a professor of medicine in Dar ul-Funun, but also was Naser al-Din Shah Qajar's special physician, and also in charge of the health of the army.⁸ He continued this path until he became the chief of physicians of the government, and had this title until 1890. Due to the scientific, cultural, and health services provided by Mirza Ali, he was awarded a diamond royal ring by Naser al-Din Shah Qajar.²¹

According to his biography, he insisted on preservation of the Iranian customs and culture, not being influenced by the European lifestyle. His manners and behavior did not change although he had traveled to Europe.^{6,17} Mirza Ali's scientific position was so enviable that when his scientific opinions differed from those of the French physicians, his opinions were accepted by other physicians. As a result, the scientific personality of Mirza Ali was brought into the spotlight. He was a hardworking, determined, and quick-witted man, who knew the path to his success.⁷

Mohammad Hassan Khan Etemad al-Saltaneh (1843–1896) one of the historians and high-ranked figures of Qajar court in the books of Maasar al-Asar and Merat al-Boldan praised him for modesty and humbleness, but unlike these two books, Ehmadi Al-Saltanah, in his diaries and secret memories published years after the death of the writer in the Pahlavi period, condemned Mirza Ali for being arrogant and uninformed. He even goes further and claims that Mirza Ali obtained a fake certificate and bribed Dr. Joseph Désiré Tholozan (1820–1897), the French physician to confirm his membership in Health Conservation Council in order to be Nasr al-Din Shah's special physician.^{2,13,22}

Eventually, after a lifetime of scientific endeavor, Mirza Ali Doctor passed away in 1892 AD in Tehran.^{7,17}

Conclusion

Mirza Ali Doctor Hamedani was one of the physicians in Naser al-Din Shah Qajar's era. He was among the students sent to Europe to study the state-of-the-art sciences. Mirza Ali traveled to France to finish his studies at his own expense and obtained his Ph.D. The textbooks and manuscripts authored by Dr. Hamedani are indicative of his medical expertise.

The main focus of the writings and translations of Mirza Ali Hamedani circled around the gynecologic diseases, childhood illnesses, neurological diseases, and anatomy. In addition, he played a pivotal role in the advancement of pediatrics by writing and translating a specialized work in this field. Thus, he pioneered pediatric medicine in Iran.

There are also books on ophthalmology among his works, which show his specialty in this field. Mirza Ali lived in Qajar period when the new medical methods were being applied in addition to the traditional-Islamic medical methods. He was one of the very first physicians who promoted the western medicine in Iran. Also he is considered a pioneer especially because of translating European medical books into Persian. However, he tried to preserve the original style of the Iranian traditional medicine using scientific methods.

Authors' Contribution

Idea and design of the research: MF; Collecting Data: MF, SAG; Drafting and Finalizing the manuscript: MF.

Conflict of Interest Disclosures

The authors have no conflicts of interest.

Ethical Statement

The Ethical Committee of Department of Theology and Islamic Sciences of Ferdowsi University approved the study.

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