Isaqa Ibn Imran, a Physician of North Africa with a Look at His First Independent Work "Fi al-Mālikholiā" (Melancholy)

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Abstract

Medical knowledge has gone through many ups and downs in its historical background. The formation of medical schools existed in different areas of Islamic territory. The purpose of this research is to introduce the character of Isaqa Ibn Imran and the impact of his works on the evolution of medical knowledge in North Africa. The present paper was written with a descriptive-analytical approach and a library method. After collecting relevant information, historical sources were analyzed and classified. To get more information, many articles were read and a search was made in electronic databases. The knowledge and attitude of Muslim physicians were different according to the climatic characteristics. Social and political conditions were effective in the production of various works as well. Isaqa Ibn Imran (d. 892) was one of the physicians born in Baghdad, who played an important role in the expansion of medical knowledge and philosophy in North Africa. The results of the research indicate that Ibn Imran is considered sheikh al-Attiba and a specialist physician, a pioneer of the school of medicine and pharmacy in North Africa. From all the works and writings that have been remembered by him in the field of medicine, he can be mentioned as a specialist in mental diseases among Muslims. His most important writing is the treatise "Fi al-Mālikholiā" among the first works on the treatment of mental disorders and the description of its therapeutic drugs, which there was no history of writing such a book by Muslim physicians.

Keywords: Aghlabids; Isaqa Ibn Imran; Medical history; Melancholy; North African medicine

Introduction

Medical knowledge did not flourish in North Africa around the sixth and seventh centuries AD, and this continued until the formation of the semi-independent government of Aghlabid [1] (Figure 1). The rule of Aghlabid as the first ruling family in the west of the Islamic lands was formed in 800 AD by the efforts of Ibrahim Ibn Aghlab. The diligence and interest of the leaders of this government in promoting knowledge and also competing with the regions of the Islamic lands led to the flourishing of sciences and knowledge in this region. Aghlabid rulers who owed the sovereignty and legitimacy of the Abbasids established scientific centers and in imitation of the Abbasid caliphs supported scientists in various scientific fields. Ibrahim II (875-902 AD) after the construction of the city of Raqqada¹, established a scientific and research center called Beit Al-Hikmah (The House of Wisdom) in this area and invited scientists in various scientific fields including mathematics, natural sciences, and medicine to do research in this center. Thus, medical science expanded during the reign of Aghlabid rulers in Tunisia. Isaqa Ibn Imran is one of the leading physicians in the field of medicine who migrated to this region at the invitation of the Aghlabid rulers. In fact, after the construction of Beit Al-Hikmah in Raqqada with the


¹The second center of the Aghlabid government was built by Ibrahim II in 878 AD and the capital of the Aghlabid was moved there from Abbasiya.
scientific efforts of Ibn Imran and the trained students of his school, medical knowledge and philosophy fully flourished in Tunisia. Some experts in the field of medical history have called him the Father of Tunisian medicine and the first founder of the medical school there [2]. It was his scientific activity that led to the flourishing of the scientific and intellectual movement in the theoretical and comparative sciences. The scientific movement of the physicians of this region in addition to influencing the evolution of medical knowledge, the translation of the texts and works of the physicians of this land reached Europe through Sicily (Sicilia) and Italy [1]. In the present article in addition to introducing and analyzing the scientific life and works of Isaaq Ibn Imran, his contribution to the medical knowledge of Muslims will be explained and specified.

Materials and Methods
The present article is library research with a descriptive-analytical method. This study is based on the information collected using the keywords of Isaaq Ibn Imran, medical schools, African physicians and medical history. For this purpose, first, historical sources were collected with some information about the subject of the research or even a reference to those materials. Then, reading, taking notes, and classifying the material, the data was analyzed before writing the article. A search was made in electronic databases such as Scopus, Science Direct, Google Scholar, and SJD to obtain more information and finally, the results were written. According to the studying carried out so far, no independent research has been done about Isaaq Ibn Imran. In this regard, a paper entitled Isaaq Ibn Imran was written by Yunis Keramati in the Encyclopedia of the Islamic World, which briefly introduces this physician and his works.

Results

Biography and scientific life of Isaaq Ibn Imran
Abu Ali Isaaq Ibn Imran Baghdadi is one of the learned students of the medical and philosophical school of Baghdad. Ibn Imran is a prominent and renowned Muslim physician, whose fame in this science is due to the authorship of "Article on Melancholy". There is no complete and accurate report on the biography and scientific life of this physician, but a comprehensive analysis of his scientific activity and aspects of his life can be found in the texts and manuscripts left by this eminent physician, as well as on the basis of historical evidence. Unanimous reporters have called him Baghdadi origin and Muslim [3-5]. The sources do not mention the year of his birth, but he is considered to be one of the contemporaries of Hunein Ibn Isaaq1 and Bokhtishu Ibn Jibra'il2 who had interacted with them [1-2] and he studied under the supervision of these two physicians and Johannes Ibn Masavay3 [6-7]. He was the physician of Baghdad and Samarra during the caliphate of Motamed Abbasi (869-892 AD) [1-2,7]. Ibn Imran began his education in Baghdad and benefited from the experiences and opinions of the medical school of this city. In medicine, he has been referred to as Samo Al-Saat (a poison that kills quickly) and there are different views on it [5,8-9]. Attribution of this title to him is due to his speed in treating the disease and healing of patients or for the preparation and making of poison and lethal drugs that quickly cause the death and elimination of opponents [10-11] or because of the manufacture of the drug "Atrifel" [12]. The "poison of the hour" has also been considered a sarcastic and mocking title to him [13]. Another group also criticized his method of medicine and ethics which did not follow medical ethics and this attribution is considered to be derived from his instinct [14]. His Muslim identity has been emphasized in historians’ reports. One of the reasons for this is to be found in his name "Isaq" [3-4]. It seems the use of non-Islamic names has not been common among Muslims as Ullmann and Samraei explicitly point out he is a Muslim unlike his Jewish name [1,15]. Reports indicate that Ibn Imran was the physician of Baghdad who went to the land of Kairouan4 at the invitation of Ziyadat Allah Ibn Aghlab (902-908 AD) (the last ruler of Al-Aghlabid) [3-4,13,15]. Some new researchers consider his presence in this land during the reign of Ibrahim II Aghlabid (874-902 AD) who was selected as a special physician of the king. He engaged in scientific and research activity in Beit Al-Hikmah (The House of Wisdom) and after the death of Ibrahim II and his son Abdullah II (902-903 AD) he served as the last king of Aghlabid Ziyadat Allah III (902-908 AD) who suffered from mental illness [1-2,7]. According to historical evidence, Ibn Imran was present in Egypt and in the royal court of Tulunids5 before migrating to Kairouan [16-17]. In addition, we can mention "the Safuf (a kind of medicine form similar to powder) written by Isaaq ibn Imran for Ahmad ibn Tulun" which Ibn al-Jazzar6 mentions in his book

1. Abu Zaid Hunein ibn Isaaq Ebadi (809-873 AD) was one of the famous Syriac translators, physicians, and theologians who translated many texts from Latin and Syriac into Arabic.
2. According to a contemporary with Ibn Imran, it seems that this Bokhtishu is Bokhtishu Ibn Jibra'il who passed away in 870 AD. He is considered to be from the Bokhtishu family and one of the physicians during the Caliphate of Ma'mun (814-834 AD) to the Abbasid Muvakil (847-862 AD) in the city of Baghdad and the scientific center of Jundishapur.
3. Abu Zakaria Johannes ibn Masavay Khuzi (780-862 AD), Iranian Nestorian physician, one of the graduates of Jundishapur center of Jundishapur.
4. Kairouan is Arabized for the Persian word caravan. It is one of the important cities of North Africa and the seat of Kairouan Province, which is located in modern Tunisia.
5. The government that was ruling in Egypt between the years (869-905 AD).
It seems that there has been a mix in the recording of his work and its cause of his death is provided. According to some reports after Ibrahim II built Raqqada and Beit Al-Hikmah (The House of Wisdom), he invited scientists; undoubtedly the invitation of Ibn Imran was also for this reason [1]. Particularly, some have mentioned Ibn Imran's migration to North Africa between 876 AD and 878 AD. [17,23], some have even said 896 AD. [6]. With this report at the beginning of the reign of Ibrahim II, Isaaq joined his service. The period of the presence of Ibn Imran in Kairouan was about fifteen or twenty years and after Emir Ibrahim II was afflicted with the disease of melancholy and chaos and the behavior of the Aghlabid king, Ibn Imran was killed by the order of Ibrahim II in 892 AD. [20]. But what casts doubt on the acceptance of Ibn Izari's report are other narrations that have been discussed before; Ziyadat Allah Aghlabid invited Ibn Imran to treat his mental illness, and finally the strained relationship between them and his assassination by the order of the king which has been narrated by previous sources [3,4,8]. In addition, according to Sezgin, before Ibn Imran's presence in Kairouan, he treated Ziyadat Allah ibn Aghlab who was suffering from melancholy, and moved there at his invitation [13]. Sezgin's report is used as such that Ibn Imran had contacts with Aghlabid kings before migrating to this land and this indicates the presence of Ibn Imran during the reign of Ibrahim II. On the other hand, it is mentioned in the sources that Ibn Imran wrote his work of "Al-Onsor Va Al-Tamam" for the minister of Ziyadat Allah Aghlabid [14,21]. Therefore, he was alive until the time of the last king Aghlabid.

From all the narrations and reports of earlier and contemporary historians, the authors of this article conclude that Ibn Imran came to Africa at the invitation of Ibrahim II and after changing the behavior of the king he left Kairouan and returned to Baghdad and again he has been invited to Kairouan at the time of Ziyadat Allah Aghlabid. All the sources agreed that Ibn Imran came to Qairwan from Baghdad at the invitation of Ziyadullah. Perhaps one of the reasons that Ishaq Ibn Imran accepted the invitation of king Aghlabid by some conditions was his unpleasant experience in Qairwan during the reign of Ibrahim II. This suspicion is reinforced by the fact that Ali, the son of Ibn Imran, joined the Al-Fatimiyoun. According to Ullmann, Ali, son of Ishaq, was going to revenge for his father's blood but the capture of Qairwan by the Ismaeilian prevented him from doing so [15]. Ali Ibn Ishaq joined the Fatimids in Qairwan after accepting their religion and gaining a lot of prestige with them.

**Works and writings of Ibn Imran**

Ibn Imran has written most of his valuable treatises and works in Kairouan for the rulers of Aghlabid.
According to a narration, he wrote more than thirty works in various scientific fields but unfortunately, only a few works have survived and have reached us. The list of his works and essays that appear in first-hand texts and sources are:

- **Al-Adviah Al-Mofradah** (Simple Medications) [3,24,25] and it is also mentioned as **Al-Adviah Al-Mofradah fi Nazhat Al-Nafs**¹ (Simple Medications for health) [26,27]. This work has been considered the first scientific dictionary in describing and identifying single drugs in Kairouan [17].

- **Al-Istisqa** (Asking for water) which is addressed to Saeed Ibn Towfil the private physician of Ahmad Ibn Tulun¹⁰ [13,24,25]. In addition, Sezgin mentions a book named **Al-Istisqa** which is quoted in a summary of the work of Marwan Ibn Jinnah [13].

- Galen's *Aqvil* in wine (What Galen said about wine), it seems that in this treatise Isaaq Ibn Imran has collected Galen's views on wine.

- **Al-Simar** (Fruits), Collection of excerpts from the writings of Galen [2].

- **Fi Al-Ayarjat** (a kind of medicine in the form of a semi-solid paste), Drugs have been made in the form of syrup. The author of this work has written for Ziyadat Allah ibn Aghlab and is said this work has been a model for Rhazes in writing a book with the same title [13].

- **Fi Al-Fasd** (Blood Letting) [25] is a book about traditional bloodletting and its methods and appropriate times for the prevention and treatment of diseases¹¹.

- **Fi Al-Bauwl Men Kalam Hippocrates**, Galen and etc. (About Urine from the words of Hippocrates, Galen and etc.) which has brought the opinions of ancient Greek physicians in this regard [24,25].

- **Fi Al-Nabz** (About Pulse) mentioned by Ibn Motran in *Bostan Al-Atibba* [13].

- **Fi Bayaz Al-Medeh Va Rosoub Al-Bauwl Va Bayaz Al-Mani** (In gastric whiteness, residual urine, and white semen).

- **Qarahadin**, (Book of drugs) this work has not been fully achieved [2].

- **Fi Tabaqat Al-Ain** (About eye layers) [2] indicates that Ibn Imran also specialized in the field of ophthalmology.

- **Nazhat Al-Nafs** (Simple Medications for health) [24].

- **Al-Onsor Va Al-Tamam fi Al-Tibb** (Element and Integrity in Medicine) [3], on the subject of various medicines which he wrote for Ziyadat Allah ibn Ghalib. Ibn Bitar has quoted it in his work *Jami Al-Adwiah Al-Mofradah* [7,13].

- An article about food that he wrote for one of his friends [13].

- **Maqalah Fi-Ilal Al-Qolanj Va Anvahou Va Sharhi Aoditah** (An article on the causes of colic and its types and explanations) which he has written for Ibrahim Ibn Aghlab [3,7,13].

- An incomplete article has been written on the subject of making up the prescription which is one of the first works in this field [13].

- A short treatise called *Fi Hefz Al-Siha Va Tadbirha* (In the field of health maintenance and management) [27,28] which is also entitled *Risalah Ela Bazi Ikhtvaniha* (A treatise to some of his brothers) [2]. As its name implies, it is in maintaining health and planning and protection of health. Parts of this work have been brought in the book "Aqd Alfarid" [29].

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¹Founder of the Tulunids rule in Egypt (868- 905 AD)

²Bloodletting is one of the methods of disease prevention and treatment of various diseases that were used by Muslim physicians. Refer to: "Ali Ghofrani and Narges Kadkhodaei. Cupping in Muslim Medicine. Islamic History and Civilization, volume 10, issue 19, 2014."
ferred to it as "fi al-Mālikholiā" [3,5]. This manuscript which was written for the treatment of melancholy mental disease is the result of the author's opinions and ideas and is taken from his personal observations and experiences in the treatment of king Aghlabi's disease in Kairouan [2]. For the importance of writing his work in the introduction, the author reminds us that no significant work has been reported from the predecessors in this field and only Rufus has paid attention to this disease; however, he goes on to point out this critical matter that Rufus considered only physical factors to be the cause of the disease and neglected the psychological factors that cause the disease [2,30]. This work is written in two parts and contains a lot of information and knowledge about melancholy and the causes of the disease and its treatment methods. He first names the types of melancholy and mentions three types of its origin; it is a type of disease caused by the stomach and two other cases of the brain. Ibn Imran has enumerated several factors as the causes of this mental illness but has only described the stomach type and ignored other types [30]. Since this work has been written for the treatment of king Aghlabi, the author's care and emphasis on the treatment of stomach-type treatment can be considered as the reason for the brevity of the work. In particular, there are reports of Ibn Imran's prescription and dietary instructions for the king [4]. However, he has tried to briefly explain all types of melancholy. The method of writing the work is first to describe the disease then it accurately describes the mental and physical symptoms of the disease. In the following, the topic is dedicated to the same signs and symptoms of different types of melancholy. The second article, which consists of two techniques, describes the general methods and the detailed methods of treatment which explains it well. According to Ibn Imran, a mental illness that originates in the stomach has many complications and dangers. Regarding the causes of the disease, he considers food to be the most essential reason although he also considers the body and the mind to be involved. His treatment methods are first prescribing medicine and dietary instructions and maintaining health and blood-letting. One of the essential points in the treatment of the disease which is psychologically noteworthy is his advice on music therapy and quoting kind words to the patient [30]. Finally, Ibn Imran has dedicated the end of his book to the types of drugs from simple to combination that is useful for treating the disease. The sum of these reasons has led to the treatise being referred to as a unique work that has no precedent before [3,4,16]. In his work, the author has used the opinions of Greek physicians such as Rufus, Belladius of Alexandria, Galen, Hippocrates, Aesculapius, Diocletian, and Bulles. Isaak cited the sayings and experiences of Jacob Ibn Isaak Kendy, one of the Muslim doctors, as well [30]. Ibn Imran cites Greek physicians and Ulmann writes in describing this work that Ibn Imran used the views of physicians of ancient Greece [15]. Ibn Mutran has narrated stories from Ibn Imran about the treatment of mental patients [31] which can be explained in its place.

Translation

The treatise "Fi Al- Mālikholiā" (Book of melancholy) has been translated into Latin and German. The treatise on melancholy [32] was translated into Latin by Constantine the African in the eleventh century AD [15,33]. Constantine attributed it to himself and was attributed to Rufus in translation and printing in Basel in 1536 AD [13, 34] but eventually, a researcher named Abu Bakr Ibn Yahya found that the book belongs to Isaak Ibn Imran by comparing the Arabic and Latin texts of this work [35]. Another German translation of this work from Boom was done in 1903. Of course, again in 1976 Carl Garbers published this work critically entitled "The Essay on the Melancholy and the Book of Constantine the African on Melancholy" and published it in Arabic-Latin together in Hamburg [13, 30]. Garbers' article was published in 2009 by Razi Al-Hejazi and Adel Al-Omrani in Tunisia [30].

Versions

Three copies of this work are available in libraries around the world: The Munich manuscript, the manuscript of the Nahas library in Aleppo, and also the manuscript of the Hassan Hassani library in Tunisia [2].

Discussion

The list of works and treatises of Ibn Imran indicates his specialization in medical knowledge which is a monograph on the description, identification, and treatment of various diseases, some of which have been written specifically for physicians or important political figures. But what distinguishes Ibn Imran as a specialist and authoritative physician regardless of his extensive knowledge in medicine and his ability and skill in diagnosing the cause of the disease is to write an independent work on melancholy and also works that he has left in the field of pharmacology. Therefore, he can be mentioned as a pharmacist and specialist in mental diseases. Ibn Imran had special skills and expertise in making and combining compound drugs. Isa Beck (1876-1946 AD) knows his fame as a physician in the knowledge of herbs and medicines [5]. Prominent physicians and pharmacists such as Rhazes and Ibn Bitar have quoted Ibn Imran in their works. Rhazes has repeatedly mentioned Ibn Im-

1. A city in Switzerland
Isaaq Ibn Imran, a physician of North Africa

Ibn Imran's views on various medicines and foods in "Al-Hawi fi Al-Tibb" (the Great Continens) without the title of the works [29] and Ibn Bitar in "Jami Al-Adwiah Al-Mofradah" in describing and introducing simple medicines according to Sezgin more than 150 times quotes him [13,30]. Ibn Jazzar also relies on the sayings and experiences of Ibn Imran in his works such as "Al-Etemad Fi Al-Adawiya Al-Mofradah" (Relying on single drugs) [17].

It has been pointed out earlier that his knowledge of philosophy and wisdom was no less than that of medicine [1], but there is no influential work in the field of philosophy in the list of his books. The treatises and texts left by this knowledgeable physician have been published in a collection entitled "Ibn Imran's medical treatises" by Dr. Ehsan Moqaddas. Ibn Isaq's most notable work is "Maqalah fi Mālikholiā" (Book of melancholy) which is the first independent text in the field of mental disease. Sezgin has known Ibn Isaq's contribution and effectiveness in Western medicine to the writing of this work [13]. A number of early and late specialists have referred to his work in the field of mental illness; Like Ibn Juljul and the author of "Masalik Al-Absar" (visual pathways) without mentioning the title of the work, they have written that Ibn Imran wrote a work in the field of melancholy and its treatment that is unique in its kind, and such a work has never been seen before among Muslim physicians [4,16]. Of course, some have referred to it as "Fi Al-Mālikholiā" [3,5].

Conclusion

Ishaq ibn Imran was a graduate of the Baghdad School of Medicine and Philosophy who studied under eminent physicians like Gabriel ibn Bokhtishu, Hunein Ibn Isaaq, and Johannes Ibn Masavay. Ibn Imran spent some time in the court of Ahmad ibn Tulun in Egypt during the reign of Toulonids. After that at the invitation of Ibrahim II, he went to the land of Kairouan and did research in Beit Al-Hikmah (The House of Wisdom). Ibn Imran was one of the first pioneers and the promoter of medicine and philosophy in North Africa. During his stay in this area, he wrote essential texts and treatises in the field of medicine and its sub-branches like pharmacy and ophthalmology. His most important work in the field of medical knowledge, Fi Al-Mālikholiā (Book of Melancholy) is one of the first works on the treatment of mental disorders and the description of its therapeutic drugs that the writing of which was unprecedented among Muslim physicians. Due to the vastness of his valuable medical services in Kairouan, we can consider him Sheikh Al-Attiba (Great Physician) and maybe a specialist in mental illnesses among Muslims because of the writing of the first production text in the field of neurological diseases.

Conflict of Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Acknowledgments

None.

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