



Hakim Mohammad Azam Khan Chishti (1814-1902) and His Book about "Crisis in Diseases"

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Abstract

The term “crisis” in medical context is an important turning point or stage which occurs in some diseases and if not managed correctly, can become life threatening. Despite the use of the term in modern medicine, it was a much wider and sophisticated traditional medical concept. The first usage has been seen in the Greek writings of *Hippocrates*. In the Islamic Golden Age, this concept entered Persian Medicine by translation of Greek medical treatises. Great Persian Medicine scholars have paid particular attention to the concept and have written exclusive chapters about it. One of such scholars, *Hakim Mohammad Azam Khan Chishti* (1814-1902), an Indo-Persian physician and medical writer, wrote several comprehensive encyclopedic books - in Persian language - about various aspects of Persian Medicine including crises. In this historical review we discuss his biography and his books, especially his important book *Rokn-e-Azam*, which is a comprehensive work on the concept of crisis in which he collected and discussed opinions of great medical scholars from ancient times to the 19th century. Despite his fidelity, unfortunately he rarely criticized the previous literature and thus did not add an additional value to the subject else than his comprehensive review. In the recent worldwide accepted roadmap towards Integrative Medicine, studying such inclusive traditional manuscripts may give better insight and understanding of the behavior of acute and chronic diseases and their appearance, exacerbations and remissions.

Keywords: Persian Medicine; History of medicine; Iran; India; Crises

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Introduction

In medical context, "crisis" is defined as a turning point or an important stage of a disease where the patient's situation becomes better or worse [1,2]. The term is usually used to describe the sudden exacerbation of various specific pathological conditions, such as hypertensive crisis [3], hyperglycemic crisis [4], adrenal crisis [5], and sickle cell anemia crisis [6].

The concept of the crisis is ancient in origin and, despite similarity in definition with the modern usage, the concept has had a much wider application and sophisticated conception in some historical medical schools, like Persian Medicine (PM) also known as Iranian Traditional Medicine.

The first known physician that has commented about the concept of crisis in diseases was *Hippocrates* (5th C. BCE) [7]. Later, *Galen* (2nd C. CE) wrote treatises named *Crisis* and *Critical Days* [8]. In the early Islamic era, these treatises were translated by *Hunayn ibn Ishaq* (809-873 CE) into Arabic [8,9]. Later on, PM physicians, such as *Haly Abbas* (949-982 CE), *Rhazes* (865–925 CE), *Avicenna* (980 – 1032 CE), and *Jorjani* (1041–1136 CE) used these Arabic translations, but added more value, describing the concept of crisis according to their own knowledge and experience [10,11].

In PM, crisis is called "*Bohran*" and is defined as "a major sudden change in the patient's body which could proceed toward health or death" [12]. In addition to chapters written about the concept in general medical texts of PM, some treatises were written specifically about crises [10].

One such treatise is the book *Rokn-e-Azam* (The

Great Pillar), compiled and written by the famous 19th Century CE Indo-Iranian physician, *Hakim Mohammad Azam Khan Chishti*, in which he attempted to collect the past knowledge on the subject [12].

In this article it is mandatory to initially present a brief history of PM and its spread in India, in order to better illustrate the background and environment of *Hakim Chishti's* emergence. Then we will continue with the biography of *Hakim Chishti* and introduce his books. Finally, his book *Rokn-e-Azam* will be reviewed.

Persian Medicine and its spread in the Indian subcontinent

The practice of medicine in Persia (ancient Iran) is almost as old as Persian civilization itself, which dates back to 10,000 years ago [13,14]. The traditional medical system that developed and is still used in Iran is called "Persian Medicine", and is based on four elements and humors [15]. Persia and India have had scientific and cultural relationships and interactions since the pre-Islamic era [16]. During the 11th century, the Persian language officially entered the Indian subcontinent. It then spread in this region under the Moghul Empire (1526-1857 CE) and became the scientific and cultural language until the early 19th Century [17]. Medical science was one of the main fields that established deep relations between the two civilizations [18]. Many PM physicians migrated from Persia to India, especially during the Safavid Era (1501–1722) in Iran [19,20]. Therefore, many physicians in India started to practice PM, and wrote their books in Persian.

One of the Indian medical scholars who wrote all his medical books in Persian was *Hakim Mohammad Azam Khan Chishti* (1814-1902). He wrote many comprehensive books about various aspects of PM [21,22].

Biography of *Hakim Mohammad Azam Khan Chishti*

Hakim Mohammad Azam Khan Chishti - called "*Chishti*" in the rest of the present article - was one of the genius physicians in the medical history of Islamic India [23].

He was born in 1814 CE in the north Indian city of Rampur. His ancestors were originally Persians from Khorasan, in Northeast Iran, who later migrated to India [21,22]. His father was *Hakim Shah Azam Khan*, known as "*Sultan al-Atebbaa*" (king of physicians), who died when *Chishti* was very young [24,25].

After learning the basic sciences, *Chishti* became interested in medicine and received its fundamentals from his uncle and other great physicians of his time. He completed his medical education at the age of 22, then left Rampur and migrated to Bhopal. In this city, he became the special physician of the ruler of Bhopal; who ordered him to write his first medical book. *Chishti* left Bhopal after the ruler's death and traveled to other Indian cities, but eventually returned to Rampur where he died in 1902 CE [25].

During his life, *Chishti* visited a large number of patients daily, but despite being crowded with patients, he did not hesitate to transmit his science through writing [23]. Throughout his books, he attempted to collect a comprehensive encyclopedic review of the PM knowledge up

to his own time [21,23]. Therefore, his works count as one of the most citable and referred PM sources today. However, up to now they remain unknown in the West because they have not been translated into a Western language.

His main books are:

1. *Romuz-e-Azam* (The Great Secrets): This is probably the first book written by *Chishti*, in which after presenting an autobiography of himself, he discusses variety of diseases and presents medical notes and prescriptions of many past physicians including the written patrimony inherited from his father. The first part of the book is also a valuable guide for medical ethics [22,25].

2. *Qarabadin-e-Azam* (The Great Encyclopedia of Compound Drugs): A pharmacopeia, including recipes to formulate compound drugs. At the end of the book, there is an innovative index that lists the medications suitable for each disease for easier access [26].

3. *Mohit-e-Azam* (The Great Ocean): This book, which took eighteen years to write, is one of the most comprehensive books on simple natural medicines [27].

4. *Exir-e-Azam* (The Great Elixir): *Chishti's* greatest and most famous book, is an encyclopedia of diseases and their treatments in four volumes. He spent a large part of his life - nearly 30 years - in writing this book [28].

5. *Nayyer-e-Azam* (The Great Light): A comprehensive book on pulse diagnosis, which is probably the most detailed book on this topic in PM. He introduced over 700 types of pulses with their clinical differential diagnosis [21,29].

6. *Asma-al-Advieh* (Names of Drugs): This book

contains different names of simple natural medicines. *Chishti* has listed the equivalent names of each of the materia medica in other languages, such as Farsi (Persian), Indian, Arabic, Greek and Roman [24,30].

7. Rokn-e-Azam (The Great Pillar): This is a comprehensive book about "crisis in diseases" [12], which is the focus of the present article.

The book *Rokn-e-Azam* and its importance

Chishti wrote *Rokn-e-Azam* in 1864 CE. In this book, he collected and discussed the past debates about the concept of "crisis" in the PM corpus. In the introduction, he described his aim thus: "*Since most medical students had problems understanding some of the issues of the "crisis", I wrote a book on the topic with easy full explanations*" [12].

A big advantage of this book is that it has collected the viewpoints of famous scholars who lived in different historical periods and wrote in Persian or Arabic. *Chishti* translated some important contents from their original Arabic into Persian for the benefit of the majority of his non-Arabic readers.

He quoted from some of the greatest physicians of Greek, Persian and Arabic civilizations. Some of the scholars whose books or comments are addressed in *Rokn-e-Azam* include: *Hippocrates* (460–370 BCE), *Galen* (130–210 CE), *Haly Abbas* (d. 994 CE), *Abu-Sahl al-Masihi* (d. 1013 CE), *Avicenna* (980–1032 CE), *Jorjani* (1041–1136 CE) and *Ibn Nafis Qarshi* (1210–1288 CE) [12]. Despite the aforementioned fidelity, unfortunately he rarely criticized the

previous literature and thus did not add an additional value to the subject else than his comprehensive review.

The lithographs of this book were printed in India in 1881 CE and reprinted in 1910 CE (Figure. 1). The typed and corrected version of this book was published in 2017 in Iran (Figure. 2).

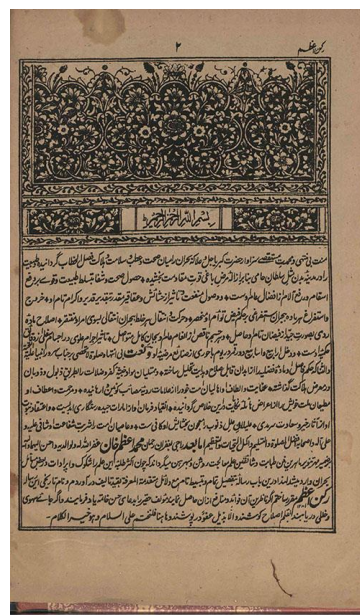


Figure 1. The first page of *Rokn-e-Azam*; lithograph, kept in Iranian Parliament Library

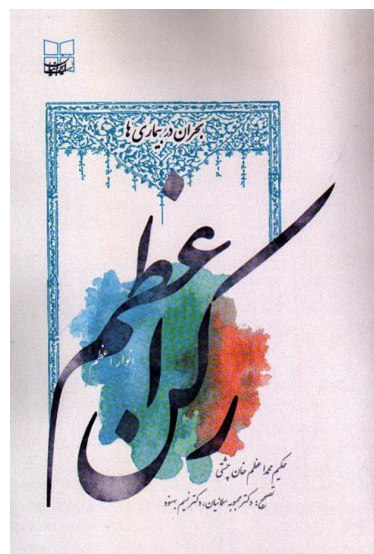


Figure 2. The cover of the corrected 2017 edition of *Rokn-e-Azam*

To review the contents of the book in brief: the author first defined "crisis" and then introduced its classification. Next, he introduced the critical days and warning days, and later on described the causes that produce crises, and finally discussed the signs and symptoms of different types of crises.

In more comprehensive detail, in his first chapter *Chishti* defined "crisis" as a major sudden change in the patient's body, which can proceed toward health or death. Narrating an interesting metaphor from *Avicenna*, he likened the body to

a city, and the disease to an enemy who wants to attack the city, and the governing nature of the body to the ruler of the city that protects it. In such an example, "crisis" is the moment that the combat between the ruler and the enemy is won by either side, being considered good or bad accordingly.

Then *Chishti* introduced different types of crises and reviewed the diverse views of physicians on this categorization. Types of "crises" described in the book are presented in table 1.

Generally, the crises that lead to a patient's re-

Table 1. Types of "crises" according to *Rokn-e-Azam*

Type of "crises"	English meaning	Duration of disease (Time of appearance from the beginning of the disease)
Bohran-e-jayyed-e-taam	Good-complete "crisis"	Under 14 days
Bohran-e-radi'-e-taam	Bad-complete "crisis"	Under 14 days
Bohran-e-jayyed-e-naaghes	Good-incomplete "crisis"	Between 14 to 40 days
Bohran-e-radi'-e-naaghes	Bad-incomplete "crisis"	Between 14 to 40 days
Bohran-e-tahlili	Good-gradual "crisis"	More than 40 days
Bohran-e-zobuli	Bad-gradual "crisis"	More than 40 days
Bohran-e-enteghaali	Transferring "crisis"	Various conditions

covery are named "good crises", and those leading to a patient's death are called "bad crises". It is noteworthy that, although the term "crisis" is mostly used for sudden changes, some physicians have also classified gradual changes under this term because they believed that every turning pattern during the disease may be named

"crisis", regardless of the duration.

In the next part, *Chishti* discussed the days in which the crises occur (critical days or *Ayyam-ol-Bohran*), and the days that portend the time of crises (warning days or *Ayyam-ol-Inzar*). On warning days, special symptoms appear in the body that warn of the occurrence of crisis

on a certain upcoming day. In good scenarios, these symptoms are mostly the consequence of a process called "Nozj" (coction) that, briefly, is a rheological change in matter and one of the most important concepts in PM [31]. Depending on the location and consistency of the substance under the *Nozj* process, the target organs and their symptoms may differ.

An important part of the book contains his attempt to explain the causes involved in the production of crises. He mentions that some physicians believed that the effect of moon on the patient's bodily fluids can be one of the most important factors for the start and development of a crisis. Thus the lunar phases may help in forecasting some critical days, however, not all of them, due to other confounding factors.

Chishti also referred to other factors that may be effective in determining the character and timing of crises, including the following:

- The rheological characteristics of humors or substances responsible for the disease
- The personal characteristics of the patient, such as age, sex, temperament, body strength, and body composition
- Psychotic conditions, such as anger, happiness, and fear
- Environmental factors, such as season, climate, occupation and habits

Description of signs and symptoms of crises comprises a large part of this book. In general, crises are mainly named according to the routes from which the pathogenic substance exits the body. Each route has its own prodromal signs and symptoms, for example if symptoms such as waving pulse (a type of pulse in PM), thick

urine, reduction of urine volume, and increase in moisture of the skin, are observed during crisis, the substance will probably exit via sweat, and thus is called "sweating crisis".

Chishti also points to other critical exit routes, including tears, epistaxis, nasal discharge, vomiting, ear discharge, diarrhea, urine, uterine bleeding, hemorrhoid bleeding, etc. In some conditions, the pathogenic substance does not exit via any of the above mentioned paths, so the matter can only be transferred to another part of body. This change and movement is named "transferring crisis". Thickness of pathogenic substance, delayed or inadequate *Nozj*, wrong or inadequate therapeutic intervention, old age, body weakness, and cold season, are some conditions that are declared to lead to such an incomplete crisis.

Management of crises is not a separate and detailed part of *Rokn-e-Azam*, since the treatment depends on the type of disease and therefore was discussed in his other books that concern diseases. Thus the author has briefly mentioned some general points, for example in the critical day, the patient should be resting and motionless, so the body completes the fight against the pathogenic matter by itself. If the body is winning the fight but needs assistance, the physician may assist according to the type of need indicated by the signs, for example, if the body is removing the matter through the intestines, the physician should prescribe laxative agents. *Chishti* finally warns that any mismanagement during a critical period can lead to severe consequences like prolongation and chronicity of illness, or even death [12].

Conclusion

As discussed before, the concept of crisis, despite its similar definition in conventional medicine, has been more important to traditional physicians, especially to PM scientists; for which reason they mostly have devoted an exclusive chapter of their books to the issue.

To review the contents of books on crises in PM is not only to review and understand *Hippocrates* and *Galen's* views on crisis, but also to receive the insight of famous traditional physicians of PM derived from centuries of observations of the phenomena. In such a revision, the *Rokn-e-Azam* will be a short cut in the literature review, and has a key position because *Chishti* has attempted to collect the related viewpoints about crisis from various historical periods, up to the late 19th century.

Considering recent international strategies towards Integrative Medicine [32], the study of centuries of traditional clinical observation and documentation on crises may lead to a better understanding of some of the today's medical difficulties including unsolved questions in predicting and managing attacks of acute diseases. It may also help to demystify and decode the causes of relapse and remissions of chronic situations such as multiple sclerosis, inflammatory bowel diseases, rheumatoid arthritis, etc. Thus, such enhanced comprehension derived from *Chishti's* summary on crisis may subsequently induce new hypothesis for better control and management of such diseases.

Conflicts of interest

The Authors declare that there is no conflict of interest.

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