

# Abu Bakr Muhammad al-Razi's, a Distinguished Physician in Point of Knowledge and Experience, About the Cases That Happened to Him

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## ABSTRACT

**Objective:** The aim of this study is to show the medical experience and practices in the third chapter of titled “About the Cases that Happened to Razi” of the book titled The Knowledge and Experience of the Distinguished Physician's in the Book of Aphorisms or The Secrets of Medicine of Abu Bakr Muhammad Razi Interpreted by Gerard of Cremona From Toledo.

**Methods:** The relevant section was translated from Western Medieval Latin into Turkish. Then translated into English on the basis of the Turkish text. In the light of the data obtained, Razi's approaches to case narratives were evaluated with the approaches of his predecessors, Hippocrates and Galen, and the case narratives in his own works. During the discussion, basic sources of medical history, the works of his predecessors Hippocrates and Galen, Razi's own works and modern sources have been used.

**Results:** As a result of the evaluation, in the cases narrated by Razi, there are people from different social groups such as Razi himself, the ruler, his friend and the slave. Findings such as the diseases that caused the case narratives, the treatment methods applied for these diseases, the presence of a negative opinion towards the physician, the feeling of trust between the physician and the patient, instant clinical observations and the duration of treatment have been obtained.

**Conclusion:** In Razi's case narratives, it has seen that he was influenced by the theoretical knowledge and practices of his predecessors, Hippocrates and Galen. In the case narratives presented by Razi, it has been noticed that while the patient group consisted of different people, some cases based on complaints such as paralysis, swelling, heat stroke, discharge, stomach pain and burning were repeated. In these narratives, it can be said that Razi's style is dominated by clarity, comprehensibility and simplicity.

**Keywords:** Razi, Aphorisms, Case Narratives, History of Medicine



## INTRODUCTION

The word case comes from the Latin word “casus, us, m” meaning “fall, fall, situation, case, and event” [1]. Nissen and Wynn [2] included the following definition made by Taber regarding the definition of the case in their study: “A formal summary of the current symptoms, diagnostic studies, treatment process and outcome of a single patient and his/her disease.” Nutton [3] has stated that medicine has been partly a public art since the time of Hippocrates and that the physician has to persuade his patients and observers with words as well as actions. Millan [4] has emphasized that case narratives provide examples of transforming theoretical knowledge into practice, improve observation skills, provide the physician with competence in medical learning and healing skills, and improve the physician’s literary side. Narratives are not only the primary forms of communication used to convey information, but also provide an opportunity to organize experience, thought, and action. Narratives describe an event, setting, or situation and its causal and temporal order, along with its origins in the past and impressions of what might happen in the future [5].

When we look at the first examples of case narratives, the Edwin Smith Papyrus, which belongs to the 16th and 17th dynasties in Ancient Egypt and dates back to approximately 1600 BC, comes to mind. In these papyri, each case has a title and is usually written in red ink. The title means “application, practical medical practice and experience” and refers to knowledge gained from practical experience. These texts contain forty-eight case narratives discussing head and upper body injuries or disorders. These are not individual case histories, but typical cases [6].

### Main Points

- The translation of this medical text is based on the 1544 Basel edition of the book. The relevant section has been first translated first from Latin into Turkish and then from Turkish into English.
- The cases described are important in terms of reflecting Razi’s clinical experience and power of observation.
- While Razi was structuring this work, it was noticed that he was influenced not only by the works of his predecessors Hippocrates and Galenus, but also by his own works.
- This study is considered to be a primary source for studies to be carried out in the field of History of Medicine.

The richest source of case narratives is his work called *De Morbis Popularibus/Epidemics* which is included in the *Hippocrates Corpus* and consists of seven books. In this work of Hippocrates, there are approximately more than 100 case narratives [7]. These case narratives of Hippocrates contain very little patient presentation and are based on the experiences of travelling physicians describing the assessment of patients. In the case narratives, which are literary, historical and nosological fragments, the anamnesis have been remained secondary [8]. In most cases, only the patient’s name, occupation, and place of residence are given, while women and children are listed according to the relative’s affiliation. Description of the patient’s condition begins at the onset of the illness or possibly on the day the patient is visited. A key feature of these cases is the careful day-by-day recording of symptoms. In addition to the psychological problems that cause the diseases and the patient’s careless lifestyle, poor nutrition or bad habits such as drunkenness and sexual indulgence, causes such as brain fever, dysentery, childbirth, puerperium, gynecological disease, swelling in the ear, high fever, nose bleeding have also been recorded. In these cases, where the treatment method is rarely described and the author is an anonymous observer, the patients are described according to gender, age, lifestyle and represent people from all walks of life, including rich and poor, women and pregnant women, young girls, young men, slaves and visitors from abroad [4,9].

Another physician who contributed to the case narratives was Galen. *Galen de Praecognitione/On Prognosis, De Usu Partium/The Usefulness of the Parts of the Body* and *Methodus Medendi/Method of Healing* have rich case examples [4]. Nutton [3] reported that Galen was interested in Greek literary classics and that there were sophists and orators among his friends. Thus, he stated that Galen used a range of literary and rhetorical skills and was able to change the tone, style and tempo of his narratives according to the situation and to avoid monotony. It is possible to see Nutton’s comments on Galen’s rhetoric skills in Galen’s work *Galen De Praecognitione* [10]. When this work of Galen was examined, it has been determined that there were fascinating case narratives. The case narratives he put forward include the following findings regarding patient groups and cases: As a result of a young man contracting an acute illness at the beginning of autumn, it was determined that Galen performed fever monitoring, pulse and urine examination. In this case, it has been stated that while there was no treatment planning,

only medication was administered. Another case described is that of a woman. It has been determined that there was no physical illness in the woman, but a psychological disorder arising from sadness and love has been mentioned. Galen also touched upon the psychological discomfort experienced by a slave due to anxiety and fear. It is noteworthy that medical advice was not included in these cases. It has also been observed that Boethus' son's diet was regulated, showing that Galen was also the physician of his family members and cases showing that Boethus' wife suffered from discharge were also included. Galen reported that in the treatment of discharge, he discharged aqueous humor from the woman, took some Indian hyacinth oil and rubbed the woman's stomach, kept her feet and hands warm, and applied scented substances to her nose [10]. Boethus appears as the patient's relative in these cases. It has been observed that in these cases, priority is given to predictions to determine the diagnosis rather than treatment.

The concept of case used by medieval Islamic scholars as Arabic Tecarib and Mucerrebat, like the medical theories put forward by Greco-Roman scientists, rhetorical and didactic methods also found a place in Islamic civilisation, and it was soon observed that Islamic medical writers began to use these narrative patterns in their own works [4]. One of the physicians who used these narrative patterns is Razi. Physician-philosopher Razi (865-925), known in the West as "Rhazes, Rasis, Alubator, Abubertus, Abubater, Bubikir, Abubeter" was born in the city of Ray in Khorasan [11,12]. According to Browne [13] Razi was involved in music and played the oud in his youth. He also worked as an alchemist in his youth and focused on medicine in the following years [14]. Regarding the process of Razi' beginning medical education, Aşkit [15] states in his study after studying Greek science, he left the city of Ray in his 30s and started to study medicine in Baghdad, and after staying there for a while, he returned to Ray and was appointed as the chief physician at the Rey Hospital, where he served patients with his students and their students, diagnosing difficult cases. And also he has reported that he practiced a clinical system that reached from his students to himself. His blindness due to cataract towards the end of his life, al-Biruni attributed it to his exposure to toxic fumes [16] and dazzling light in his chemistry laboratory on the other hand, Browne [13] has stated that he did not agree to have the operation. There are different information in the sources about the date of his death, and the general acceptance is that he was 60 years old in Ray on October 27, 925 [17].

Razi' clinical explanations, consist of his medical experiences, professional assistant notes, treatment-related narratives and case notes [4]. Razi described the cases in detail in his writings as an educational tool and as a document of the various diseases he diagnosed and treated [18]. Razi' works *Liber Continens*, *Kitabü't-Tecarib* and *Kitāb Sırr şinā'at al-tıbb* which are voluminous in terms of case narratives, are known. His work titled *Liber Continens* is a very well-equipped work in terms of presenting his own case narratives. Within *Liber Continens*, there is a group of 33 clinical cases discovered by E.G. Browne. These were later edited by Meyerhof and translated into English [19]. It is known that Razi structured work called *Liber Continens* is based on Hippocrates' *De Morbis Popularibus* and Galen's *In Hippocratis Epidemias Commentaria/Hippocrates's Comments on Epidemic Diseases*, Hunayn's *Comments on Galen*, and Hunayn's *Questions and Summaries of the Epidemic in the Form of Answers*, Hunayn's *Sayings from Epidemics* and *Questions Concerning Urine from Epidemics* [20,21]. According to Meyerhof [21] there are case narratives on internal diseases, fevers, eye and gynecological diseases in *Liber Continens*. Other information provided by Meyerhof [21] includes that the patient group consisted of people from different professions, that Razi tried to cure each person by examining them regardless of their economic and socio-cultural level, and that he applied treatment based on the cause by revealing the clinical status of the patients. Moreover, it has been noticed that Razi tried to diagnose gynecological diseases and arranged treatment, but Razi was forced to make a diagnosis based on the information given by his wife (case fifteen) or midwife (case twenty-six) without personally seeing the female patient.

Razi's other work in which he included case narratives is *Kitāb Sırr şinā'at al-tıbb*, which also forms the source of this study. This book is a study about the professional secret of the physician. It is also known as *Maqāla fī Sırr Şinā'a al-Tıbb* or *Asrār Funūn al-Tıbb* [22]. The Arabic text of this book consists of five books. The original Latin text of the book is consists of six chapters. This book, also known as aphorisms, was used as vademecum for a long time [12]. Rosa Kuhne published this study in 1982 in "El Sırr Sina'at al-Tıbb de Abu Bakr Muhammad b. Zakariyya' al-Razi" [23] in 1984, "Abu Bakr Muhammad b. Zakariyya' al-Razi: Traduccion" [24] and in 1985, "Abu Bakr Muhammad b. Zakariyya' al-Razi III" [25] published three articles in *Estudio with Arabic, Latin and Spanish translations*. These articles were published in *Al-Qantara: Revista de Estudios Arabes (Journal of Arab Studies)* issues 3(1), 5(1) and 6(1) respectively. Under

the title *Aphorismi Rasis*, this work was published in Milan in 1481, in Venice in 1494, 1497, 1500, 1508, in Lyon in 1511, and in Basel in 1544 forming part of the *Opera Exquisitoria* [25]. The book translated into Spanish by Rosa Kuhne also consists of six chapters.

Case narratives are a visual and linguistic method of making an assessment of the patient's medical or social history, clinical symptoms, course of disease, methods used, disease relationships and side effects [2]. Case narration helps the physician to interpret the symptoms observed in the patient, transforms the physicians power of observation into intelligible expression, provides effective communication by actively listening to the patient, develops a sense of trust between the physician and patient through effective communication, and strengthens the physicians narrative skills [26]. To be precise, the case narrative is an important part of the medical experience, allowing the physician to know what he has done to the patient before, facilitating the continuation of the patient's treatment, and ensuring the continuity of medical history [27]. As seen in this study, it is also important for the physician to provide information about his own life and disease. In both theoretical and practical aspects of medical education, we must always keep in mind the famous Latin proverb "verba volant, scripta manent".

## MATERIALS AND METHODS

In this study has been used the book titled *The Knowledge and Experience of the Distinguished Physician's in the Book of Aphorisms or the Secrets of Medicine of Abu Bakr Muhammad Razi Interpreted by Gerard of Cremona From Toledo* which is situated in pages 517-546 of his book titled *Abubetri Rhazae Maomethi, ob usum experientiamque multiplicem, et ob certissimas ex demonstrationibus logicis indicationes, ad omnes praeter naturam affectus, atque etiam propter remediorum uberrimam materiam, summi medici opera exquisitoria, quibus nihil utilius ad actus practicos extat, omnia enim penitus quae habet aut obscuriora, aut Galenus fusiora, fidellissime doctissimeque exponit, & in lucem profert* [28] of which contains the works of Abu Bakr Muhammad Zakariyya al-Razi's translated into Latin. The chapters in *Abubetri Rhazae Maomethi Scientia Peritiaque Insignis Medici in Libros Aphorismorum, sive Secretorum Medicinalium Gerardo Toletano Cremonensi Interprete* are:

- 1) About the Prognostication of Future Events
- 2) About Experiences and Trust

- 3) About the Cases That Happened to Razi
- 4) About Diets, Treatments and Foods
- 5) About the Words of Hippocrates
- 6) About Sciences and Thinking Ability, Without These There can be no Honest Physician

Study, has been carried out on the the book of *About the Incidents That Happened to Abu Bakr Muhammad Razi', a Distinguished Physician in Terms of Knowledge and Experience, the Third Book of Aphorisms*. Firstly, based on the 1544 Basel edition of the mentioned work, the relevant section was translated from Western Medieval Latin into Turkish. Then translated into English on the basis of the Turkish text. The following dictionaries have been used in the translation of the Latin text: Charlton T. Lewis (1997) *An Elementary Latin Dictionary* [29], J.F Niermeyer (1933) *Medieval Latin-French (English) Dictionary* [30], and *Oxford Latin Dictionary* (1968) [31], and DMLBS [32]. = R. K. Ashdowne, D. R. Howlett, & R. E. Latham (eds.). *Dictionary of Medieval Latin from British Sources*. Oxford: British Academy. <https://logeion.uchicago.edu>. For the Greek dictionary Liddell and Scott (1889) *An Intermediate Greek-English Lexicon* [33], for English words and translations <https://www.seslisozluk.net> [34] have been consulted. Apart from these, there are Redhouse JW' (1996) *Turkish-English Lexicon* [35] and Steingass F (2005) *Persian-English Dictionary* [36] and Güneş (2011) *Arapça-Türkçe Sözlük* [37]. In determining the Turkish equivalents of plant and animal names, measurement units, and medical terms in the Latin text, the study that Aşkit (2019) translated into Turkish with the name "Razi: Practica Puerorum" has been also used [15].

In the light of the data obtained, Razi's approaches to case narratives were evaluated with the approaches of his predecessors, Hippocrates and Galen, and the case narratives in his own works. During the discussion, basic sources of medical history, the works of Hippocrates and Galen, Razi's own works and modern sources have been used.

The ancient medical books mentioned in the text are written in Latin-English order at the first mention, and then the Latin title of the book is used. The Arabic book names included in the study are written by Prof. Dr. Ahmet Aciduman. The original Latin text is presented in annex-1 at the end of the study.

## RESULTS

There have been 21 case narratives in total. Among the

patient groups that Rhazes describes, firstly he is himself, then the king, his friend, slaves and citizens. It is noteworthy that among the diseases he deals with, there are cases caused by psychological disorders and the patient's careless lifestyle, paralysis, drunkenness, fever, stomach ache, and swelling in the ear. Below you will read the narratives that Razi experienced.

1) During the time I was studying philosophy and medicine, I had many sleepless nights; I lost sleep; I did things that were not effective; I couldn't find anything more beneficial than lotus oil; by snorting it, I let the air out; I was eating cooked and raw lettuce. However, I had difficulty seeing and lacked sexual desire. I could not find anything more useful to me than eating from sparrows, eggs, and their own juice, blackbirds, and prepared in cinnamon and pepper chickens, and pigeons. My strength and memory are restored in the best way.

2) I made oil for this, there is nothing better than this: A piece of each of pine seed oil, banyan oil, wallflower oil, sweet apple oil, the middle part of the gall of sparrows when they feel sexual desire, and a muskal of the yellow wallflower seed should be taken. All of them should be boiled over low heat. After taking it off the heat, half muskal musk should be mixed into it. After bathing, the genital area and chest are lubricated with it, it gathers strength and increases desire.

3) Another case happened to me in the city of Zelergebani; A man came to me with complaints of fear and heart trembling for no reason. Frankly, among the medicines, I could not find anything that was as beneficial as falcon meat cooked in sweet marjoram juice and thin white wine. I anointed his body with fragrant oils, and he was fully restored to health.

4) Another unexpected case; the feeble old people, the ethicists, and those deprived of health do not know the cure. This treatment benefits them more than eating birds, doves, chickens, pigeons and sparrows cooked in fragrant wine and drinking fresh wine.

5) Another unexpected case; King Alhomet, the son of Halys, he blooded excessively, it was autumn and he drank wine, and after sleep he drew three libra of blood. When I was called for him at night, I found him unconscious, his eyes staring upwards out of fear. I ordered five white dove chicks to be brought to me, and I ordered them to be properly prepared and caused the organs to separate themselves, I cooked them in four quarts of fragrant wine until the meat was separated from the bones. I added plenty of cloves and cinnamon to the decoction, then I filtered this decoction, I put it in a vessel with a pitcher spout, I

served it to the king to drink, I started talking to [him] before sunrise, he drank this decoction for thirty days, he regained his former strength, his blood was completely back to normal.

6) Another unexpected case: The case, namely, the swelling near the brain, happened to King Errisideni, he was knowing and respecting me, I took three libra of blood from him until he lost consciousness with a frightening fainting, then I began to think, I anointed his body with galle, I put it on his nose, I tempered with a libra of fragrant wine, of a mixture of equal parts of chickens and pigeons, to which I had put musk, I shoved it into his mouth slowly. When he regained consciousness, his slaves had begun to weep. Some of them, looking sideways [side by side] made a plan for my death. Indeed, when the king came to life again, he told me that he did not feel much pain as long as he was unconscious from his own illness, but all his worries about me were carrying on for he feared that those standing next to him would bring me death. Also, unless he believes he's healthy, he was believing that I did not apply this treatment to him. That's why he ordered me never to take blood from him in front of anyone except the women around him. You should know that this king had survived a serious madness by this disease.

7) Another unexpected case about chronic discharge; a friend of mine, who is somewhat equipped in medicine, was disturbed by the discharge for a long time, and he frequently used many things for the discharge. He finally told me that they did not provide any benefit. So I stayed with him overnight to explain the cure for the disease and I understood, because he was more disturbed by the discharge after sleep, I realized that the cause of the disease was the hot humor that suddenly poured out of the brain and its flow intensified when it actually reached the stomach. He was really screaming in pain, there was no flow, he was constantly drooling, so I personally ordered him to shave his head with mustard and rub it vigorously with mugwort, and then he regained his health and never had a headache.

8) King Hamech, the son of Halys, had a stroke. In the beginning, there was no proper treatment, but they left him as he was, none of the physicians ordered anything else to be done to him except anointing and fumigating the body with fragrant things, I did not believe that it was enough for him, but I did get him to have to cup from his neck, he died quickly from that disease, in this case, self-confidence is a necessary state. If it happened to a person who is not weak-tempered and has a soft body, since this disease occurs in the neck, as we said before, it is necessary to

do cupping. I didn't want to do any of those things that some people recommended, but I put lotus oil on his nose.

9) I have helped many people suffering from heartburn and dryness get rid of many wounds with lotus oil and its syrup, I gave them to drink watery white wine moderated with snow water. I made them eat fatty chickens in which I put the moldy juices of quince seeds and lotus oil.

10) A well-intentioned friend of mine, who was studying the books of Galen with me, complained of pain in his stomach, and the pain increased as food passed through his stomach, I taught you to do these things, he told me he had made them before, I ordered him to take three ounces of rose sugar and the same amount of violet sugar, and I ordered these ingredients to be mixed well, in which I put half a muscal of amber and an ounce of lotus oil, and I mixed the oil in it, he used it, and he was cured of this disease by the permission of God.

11) Another unexpected case; I have cured many people of sun-induced fevers with lukewarm baths and cold water, and [the water] was so cold that the patient was afraid of it.

12) Another unexpected case: I have cured people with fatal latent fevers with the juice of laxative fruits and with sweet-smelling cold and temperate things, making them cold and moisturized, for if this cure had not been applied, the sick [person] would have succumbed to the disease.

13) Another unexpected case: Heatstroke happened to any person in summer, while he was out for a walk, a highly acute fever seized him, the temperature increased in him, he began to turn red in color, his very temperament changed, his illness became severe, his breath itself was very hot like fire, I personally examined him for signs of blood flow, he had heart palpitations. I looked carefully to see the blood flow, so I waited for an hour or two, believing that he would have some flow, nothing happened, I ordered him to rub his nose vigorously, no blood came out, the fever, impatience and pain began to increase in him. I therefore gave him ten libra of cold water, the fever subsided, he urinated a little, the fever began to subside, and yet the fever continued in him for forty days.

14) No one, out of concern for a slave, gave him water as he was given to his master, and he died before nightfall, the case happened in the morning. Although these cases have been

mentioned before, still different accounts are recorded here and there, in some cases, this event is told more than it is, so we have taken care to include them here.

15) The great King Haamor, son of Halys, weakened spontaneously in the autumn, when in his drunkenness, the bandage on his forearm loosened, and much blood flowed out. I was taken to him at night, and found him himself unconscious, so strong that even though his eyes were open, not even his eyelids moved, then I ordered five young pigeons and five chickens to be slaughtered, cut into pieces, and boiled in three quarts of sweet wine until the bones were separated from the meat. I put musk, cloves and cinnamon, and drank the strained liquid from the oracle's bowl, and after a while his strength and memory returned to him, and he was told to take this medicine for thirty days until he could replace the blood he had lost.

16) The hot swelling near the ear again affects the great king, now I had become a very familiar and friendly person to him, and I ordered an intravenous blood draw in the amount of three libras from the king, who had fainted for a long time. I myself healed him without fear, anointed his body with gall, and sent much of it into his nose, and took a [libra] of sweet-smelling wine, and a [libra] of the broth of young pigeons and hens, and added fresh red musk, I personally sent it down his throat, he regained consciousness immediately, there is no doubt that he was saved from a strong madness/delirium thanks to this treatment, that is, by taking blood from the vein.

17) Haamel, the son of Halys, was paralyzed, and the physicians who were with him ordered to put scented things in his nose, but I did not find it appropriate. But I was happy to do cupping on the neck cavity, because it is useful for everyone who is not cold-tempered and has paralysis, and I did not need any other medicine other than putting lotus oil in the nose for acute migraine.

18) The person constantly complained of diarrhea, I ordered him to use the things he had used before. But they did not benefit, when I spent time with him, I saw that he did not sit in the chair all the time, except after a long sleep. Then his nature was constipating throughout the day, I asked him if he had diarrhea after night's sleep, he said it was, I realized that the humor went from his head to his stomach, moving the stomach to expel waste, he frequently spit saliva when he was awake, when I thought that the humor descended from there [the head] in sleep,

I ordered him to shave his head, rub it with mustard and spread the scent of mugwort, and the chronic diarrhea disappeared.

19) I have also saved many people from death who complained of dry stomach and fever by giving them lotus sugar and syrup and diluted white wine and the same amount of chilled water on the stomach. I was giving him cold, cooked chicken sprinkled with the sticky pulp of quinces and lotus oil.

20) I had a friend who complained of stomach ache, especially at the beginning of digestion. I took four ounces of violet and rose sugar, mixed it, added a ounce of aloe, and an ounce of lotus oil. I mixed it again and applied it to him personally until he completed the treatment and got better. I have always been satisfied with the earth bath with fresh hot water at Ephimera. Then I was always pleased with the cold water, the syrup of fruits with laxatives on a constant fire, always taking care not to expose it to pubescence, and using it in all kinds of fires, coldness and dampness. This is the treatment I applied to him when he was caught while walking in the summer, while returning, he caught an acute fever with very high temperature, but on the fourth day the fever increased, reddening of the bile, harmful symptoms appeared, the breath coming out of it was very hot, after an hour he had chest pain, when I saw all these symptoms occurring, I was expecting a runny nose or diarrhea, harmful things continued in the same situation, I ordered him to scratch his nose so that the delayed discharge could come, the temperature could increase, I gave him ten pounds of cold water, suddenly, hardness developed, the temperature decreased, he urinated, the fever continued like this for ten days, similarly his slave who was walking with him was also exposed to this same fever. But because he did not drink cold water, he died at the same time at noon of the same day. There is no doubt that the master was saved from death by drinking cold water.

21) Razi states: Because I am very enthusiastic about medicine, I had to stay sober, I did so until I was completely sleepless, I used different things that did not benefit me at all, I could not find anything better except putting lotus oil in the nose and eating the lettuce that I consumed throughout my youth. When I consumed it in my old age, I bought the slightly cooked ones. Then I developed poor eyesight and testicular weakness, I have found nothing better than to consume sparrows and pigeon chicks until sight is restored. I have found a perfect oil for this, the rest is nothing but trouble: pine oil, banyan oil, sweet apple oil must be taken from each of them, from the middle part of the

sparrow's gall. All of them should be boiled over low heat until they boil over, then add half an ounce of red musk, lubricate the penis and testicles using after bathing, this oil stimulates and regulates strength. A young friend of mine, a Jerusalemite like myself, complained to me of heart trouble, sadness and fear for no known reason. I ordered him to ask for the meat of the falcon, sprinkled with rose water and roasted with basil and cloves. I ordered him to drink white wine instead of water and to smell fragrant things. I personally helped him gain courage and strength through this. Thus he was healed of the affliction. You should know that the old strength could not be obtained by regaining health and a little blood unless you consume pigeons, doves and sparrows along with fragrant wine.

## DISCUSSION

First of all, it should be noted that cases one, two, six, seven, eight, 13, 18 and 21 were included in the discussion. In this chapter which Kuhne [25] states is the most praised section by western authors and whose two Latin editions confirm its popularity in Europe, Razi included the prescriptions he applied regarding his own complaints in cases one, two and 21. An autobiographical narrative appears in these cases. Temkin [19] emphasized that this autobiographical information is important if it is believed, as it provides information about Razi's blindness. In the fifth chapter of the second book of Galen's work *De Locis Affectis*, which consists of six books, between pages 69-135, it was seen that he described a severe pain that happened to him by saying "Ac memini mihi ipsi accidisse dolorem vehementissimum" (and I remembered an extremely severe pain that happened to me). Thinking that the cause of the pain was a stone in one of the ureters, he mentioned that he applied herbal treatment and the process of removing humour from the body. However, when he removed the humor from the body, he claimed that this pain was caused by the intestines, not the stone. It was also noticed that Galen used the first person singular of verbs such as 'excrevi' 'I emptied', 'putabam' 'I was thinking', 'conspexi' 'I observed'[38]. One of the points that parallels the case narratives of his predecessors is that in Razi's work, the patient groups include the king, his friend, slaves and citizens after him. Brain [39] reported in his study that Hippocrates treated poor people in different towns. Galen, on the other hand, in the fourth chapter of his ninth book, located between pages 599-660 of his work *Methodus Medendi* which consists of 14 books, describes the cases in which he dealt with two different young people, one free and the other a slave, with fever, showing his medical approaches and literary equipment: "Ac tibi exempli causa redigam in

memoriam adolescentis duos quos una mecum vidisti. Erat alter eorum liber et palaestrae peritus, alter servus haud inexercitatus ille quidem...”[40].

(However, I will remind you [Eugenianus] by way of example of the two young men you saw with me. One of them was free and experienced in wrestling, the other was a slave who was not really incapable...)

Galen gave priority to the free wrestler, and at the moment he encountered the patient, he described the patient's clinical condition and the pulse characteristics, which are considered among the vital indicators, “...Sed pulsus aequales et maximos et celeres et frequentes et vehementes...” “But the pulse is regular, loud, fast, frequent and violent...” and he described urine and its characteristics, which become physical indicators in the physician's evaluation of the patient, the foods he is accustomed to, fever, duration and type of fever, and the patient's follow-up at regular intervals [40]. Among the treatment options, it is among the findings that a treatment plan such as bloodletting and rest was made according to the needs of the patient [40].

In the context of the subject, Razi emphasizes that in his work titled *Ahlāq al-Ṭabīb* being the physician of a statesman provides a high position for the physician increases his value, and that there will be no negative situations such as humiliation and playing with his honor [41].

It can be said that Razi continued to treat people from all classes of society, without deviating from social discrimination, by quoting Galen's approach, “What befits a physician is to treat the poor as well as the rich”, in the chapter titled “The Necessity of Treating the Poor” in his work titled *Ahlāq al-Ṭabīb* [41]. However, it is noteworthy that in the chapter titled “About the Cases That Happened to Razi's”, he does not include women and children in the patient group. In this context, Razi emphasizes in the chapter titled “The Most Difficult Aspects of Medicine” of his work titled *Ahlāq al-Ṭabīb* that one of the most difficult aspects of medical science is the treatment of women [41]. Meyerhof [21] refers to the impossibility of a comprehensive examination of Muslim female patients.

Another issue that needs to be addressed is that the psychological discomfort and the patient's careless lifestyle, drinking habits, fever, stomach pain, swelling in the ear, etc. identified in Razi's case narratives largely coincide with the information provided

by his predecessors. In the chapter titled “About the Cases That Happened to Razi's” Razi, unlike his predecessors, did not include any narratives about pregnant women, childbirth, puerperium, and women's vaginal discharge. Another issue that does not overlap is that while Hippocrates almost never included treatment in his work titled *De Morbis Popularibus*, in Razi's work includes warm baths, cupping, rubbing, using laxatives, bloodletting and treatment with wine, in addition to the treatment prepared by him, especially with herbal and animal mixtures, in individualized cases.

On the other hand, in cases six, seven, 13 and 18, it was determined that the physician spent a certain period of time (until the morning or two hours) with the patient. As in the cases of Hippocrates in his work *De Morbis Popularibus*, the patient's clinic was not recorded day by day in Razi's work. It is among the information obtained that when the physician is called for the patient at night, the physician describes the patient's clinical condition at the scene, does not administer the medicine and leave the patient's side, on the contrary, he tries to understand the changes in the clinical condition by observing the patient and provides treatment based on the cause. In this respect, it can be said that Razi was selflessly towards his patients, showed care and spared time. In other words, it is possible to see traces of the physician's touch on human life in these cases. On the other hand, in the information given by Galen in his work *De Praecognitione*, it was found that both he and other physicians left the patient after administering the medicine to the patient [10].

In the sixth case, the presence of negative thoughts towards the physician as “Some of them planned my death with a side-eye” has been found. This case was found to be repeated in the chapter titled “The Humility of the Physician” in the book of *Ahlāq al-Ṭabīb* of Razi [41]. It can be stated that this idea evokes the concept of violence against physicians, which is increasing today. In the continuation of this case, in the sentence “he (the king) commanded me never to take blood from him in front of anyone except the women around him”, it has been determined that the king exhibited a protective attitude towards the physician, when considering the people working with the king as the relatives of the patient. Levey [42] in his study of Ruhavi's views, states that the statesmen valued physicians more than other people and based on this attitude on the grounds that the art of medicine was extremely useful for both the upper class and ordinary people.



Again, in the sixth case, the sentence “...unless he believed that he was healthy, [the king] was believing that I did not apply this treatment to him” indicates that the patient trusted the physician. Levey [42] under the title “On the Examination of Physicians” in chapter sixteen where he discusses Ruhavi’s views, states that the examination of the physician is important and that medical mistakes are much more vital than mistakes made by people in other arts. For this reason, the harmony between the physician and the patient in the treatment of the disease is a situation that should be taken into account. In this regard, in the title “Humility of the Physician” of his work titled *Ahlāq al-Ṭabīb*, Razi [41] states that the patient should obey the practices and directives of the physician when he needs the benefits of medicine.

Finally, in the eighth case, unlike the other physicians, Razi confidently applied a different treatment to the patient (cupping), and the chapter is enriched and shaped with findings such as instant clinical observations about the course of the diseases that are the subject of the cases throughout the chapter, the outcome of the disease with salah or death, the duration of treatment, and the use of ink medicines predominantly in the treatments.

## CONCLUSION

To sum up, it has been noticed that in the case narratives presented by Razi, while the patient group consists of different people, cases based on complaints such as paralysis, swelling, heat stroke, discharge, stomach pain and burning are repeated. For example, swelling in cases six and 16, paralysis in cases eight and 17, stomach pain and burning in cases nine, 10 and 20, and sun-induced fever in cases 11 and 13 can be shown. In addition, it can be said that he structured the principles of medical ethics by being influenced by the approaches of Hippocrates and Galen, in terms of the physician examining the poor without discrimination and the feeling of trust between the physician and the patient. On the other hand, it would not be wrong to say that he was also influenced by his work titled *Ahlāq al-Ṭabīb* which he wrote using the works of ancient physicians like Hippocrates and Galen. However, it does not go unnoticed that he sometimes acts boldly in the treatment of cases in which he describes the disease with his own clinical observation power and reduces it to individuality. Another point that should be underlined is that he tried to understand, diagnose and treat diseases through the symptoms of his predecessors, using the knowledge of his predecessors, and his contribution to the knowledge with the experiences he gained. When examined within the literary framework, it can be said that Razi’s style is dominated by

clarity, comprehensibility and simplicity, based on the way he narrates the case. Again, it can be said that the presence of short sentences in the narrative facilitates memorability.

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## Annex-1. Original Latin Text

A P H O R I S M O R V M L I B. IIII. 533

uissus & inuenimabile ad hoc oleum, post quod non est aliud in eius operatione: Recip. olei pinearum, olei de ben, olei macianorum dulcium, ana, fel passerum mediam partem, bulliat omnia bullitione una, super leuam ignem, post adde ꝑ. s. moschirubei, & unge uirgam & testiculos, & utere post balneum, hoc oleum calefacit, & temperat spiritus. Quidam iuuenis locus meus, qui mecum erat Hierosolimis, conuersus erat mihi de cardia ca, et tristitia, et timore sine causa manifesta, cui precepi, ut esset cõcõctus carnis accipitris coctis cõ basilicon, garyophyllato, allatis & aspersis aqua rosarum, & precepi potare uinum album loco aque, et odorare aromatica, & per hoc ipsum feci acquirere audaciam & fortitudinẽ, & sic curatus est à passione. Et scias quod non potest confortari uirtus senis & conualescentium, & pauci sanguinis, nisi per usum columbarum & turturum & passerum cum uino odorifero.

*Aphorismorum libri tertij finis.*

**ABVBETRI RHA**  
Z AE MAOMETHI SCIENTIA PERITI A QV AE IN  
signis Medici, de dietis, medicinis & cibarijs, Aphorismorum Liber quartus.

**M**ine cibarium ex animalibus uel ex nascentibus non euadit, quin aliquid utilitatis, & corruptiõis habeat. Et naturales philosophi secreta eorum inuestigare quamplurimũ, & non attigerunt aliquid, nisi debili inuestigatione quo ad ueritatem, & scientes in hac re, uerbum stabile debent preponere. Et ego quidem sic & Philosophi consulo, ut ex his rebus minus quã unq̃ poterit accipiat. Et cõsulo, ut ex eis quis utatur quibus cõplexioni suæ dissonantia nõ existat. Et hoc antiqui laudauerunt sine hoc, quod secreta sua detegerent. ¶ Et quod scias quod omne, quod oculi tam habet uirtutẽ aliquid forte in corpore, uel utilitatis uel corruptionis operatur, & ex quibuscunq̃ tui non debet. Et ex his occultis nesciunt homines, neq̃ intelligunt, neq̃ etiã possunt nominare. Intellectus enim eorum occultus. Sed dieta & medicatio re subtili & spiritali debet fieri, quia odor & odoris uapor ostendit absq̃ his, quæ per comestionem & potum noscuntur. Et ob hoc cõsulo, ut ex medicinis, quis minus accipiat. Et ego detexi hinc ueritatem. Experta enim sunt ea quæ in hoc loquedi methodo apposui in hoc meo libro, quæ equidẽ ad humanã utilitatem composui, quæ inter alias dignior existit. Et ideo ciborum & medicinarũ uirtutes inquisiui amplius in hoc uerbo, ut maiorẽ possent homines utilitatẽ habere, & nos hic uerborũ multitudinẽ abijcimus. Et multa relinquimus, propterea quod homini esse difficile intelligere, & ob hoc librũ nostrũ laudamus, quia cõtinet ueritatẽ.

y y } Si ex his