

## ORIGINAL ARTICLE

### An Analysis of Backgrounds and Factors of Cholera Outbreak in Hamedan during the Qajar Reign (AD 1848-1925)


#### Abstract

During the Qajar period in the 19th century, various epidemics including cholera infected most parts of the country every year. Cholera appeared as a contagious and non-indigenous disease that spread in different parts of Iran including Hamedan province during the Qajar period as the prerequisite unfavorable conditions existed. Hamedan is a province located in the western part of Iran, a mainly mountainous region that is one of the inland foothills of the Zagros Mountains located in the valleys and northern slopes of the Alvand Mountains. It has long been the most important communication route between western cities and central Iran. During the Qajar period, this province was sometimes affected by cholera which is a contagious disease due to the unfavorable political, social and cultural condition in this period and became widely inflicted. The purpose of this study is to analyze the background and factors leading to cholera outbreak in Hamedan since the Nasserite era to the end of the Qajar period (AD 1848-1925) by collecting information in a library and documentary method with a historical and descriptive approach along with the analysis of backgrounds of cholera outbreak in the timeframe (AD1848-1925) and seeks to answer the questions that what are the backgrounds and factors that led to the outbreak of cholera in Hamedan during the Qajar era to see which one had a greater role in the spread of this disease? Findings indicate that the inefficiency and a lack of sense of responsibility of the government of Hamedan due to authoritarianism and self-interest had played the major role in the spread of cholera epidemic in this region compared to other factors.

**Keywords:** Cholera, Hamedan, Causes and contexts, Qajar Dynasty, History, Epidemics

Received: 17 Mar 2022; Accepted: 8 Jun 2022; Online published: 15 Aug 2022

**Research on History of Medicine/ 2022 Aug; 11(3): 143-168.**

Elham Parvazi<sup>1</sup>  
Mehdi Ezati<sup>2</sup>  
Alireza Alisoufi<sup>3</sup>  
Talat Deh Pahlevan<sup>4</sup>

1- MS student in the field of history of Islamic Iran, Razi University, Kermanshah, Iran

2- PhD, Assistant Professor of History, Razi University, Kermanshah, Iran

3- PhD, Associate Professor of History, Payame Noor University, Tehran, Iran

4- PhD, Assistant Professor of History, Razi University, Kermanshah, Iran

#### Correspondence:

Elham Parvazi

MS student in the field of history of Islamic Iran, Razi University, Kermanshah, Iran

eslame.iran.history1357@gmail.com

#### Citation:

Parvazi E, Ezati M, Alisoufi A, Deh Pahlevan T. An Analysis of Backgrounds and Factors of Cholera Outbreak in Hamedan during the Qajar Reign (AD 1848-1925). *Res Hist Med*, 2022; 11(3): 143-168.



## Introduction

Illness is not a calamity which is happened for no reason or suddenly; but before it begins, some background conditions are developed. Although a pathogen is necessary for a person to get the disease, it is not enough because other conducive conditions are needed for the disease to occur. (Mehri, 2002, p. 381). Among all the diseases that human beings contracted in the 19th century, cholera (Wawa<sup>1</sup>) is definitely the most terrifying disease and certainly led to the first constant efforts to plan and execute international health contracts (Zia Al-Mahmoud, 2020, p. 20). Cholera is a dangerous and contagious disease that Infects many people as it spreads. It is caused by a special microbe that is reproduced in water and foods, sometimes it appears suddenly and destroys the mass within a few hours, hence it is called Flashover Cholera (Amid, 2010, p. 1047).

The Europeans first identified it in the East in AD 1817 in India and called it “Cholera” or “Indian Cholera” or “Asian Cholera” (Nategh, 2010, p. 274). Regardless of its epidemic<sup>2</sup> form, the singular forms were referred to as “sporadic”, while the autumn cholera and infant cholera was called “showing nature” in Tehran “creation” in Hamedan. In fact, cholera (death) was not endemic to Iran, it was imported from India and Russia (Floor, n.d., p. 15), which was transferred through sea trade to other territories, including Iran in Qajar era (Zia Al-Mahmoud, 2020, p. 20). Unlike the ancient Hakims who considered cholera as a fever, a Hakim in the Qajar period, Mirza Ahmad Tonekaboni<sup>3</sup> refers to cholera as a cholera-related diarrhea in his treatise on diarrhea. His argument is that not only are the symptoms of the disease considered by the ancient Hakims not similar to the common cholera in the Qajar era, but also rational arguments rule the otherwise. For example, diarrhea and cholera were found and caused the murder of many people in some parts of Iran where airborne infections were not allowed due to good summers. And also, many people showed up to the doctor in the morning without any fever and the doctor ordered their health, but the person became ill within two hours later with vomiting and diarrhea, and died within twelve hours. Therefore, Mirza Ahmad considered the cholera disease that had spread in his time as diarrhea and vomiting which is contagious (Tonekaboni, 1880, pp. 169-170). He believes that the former cholera intended by the ancient physicians was not in fact cholera (Tonekaboni, 1880, p. 54); Therefore, considering the time of identification of this contagious disease by the Europeans coinciding with the reign of Fath Ali Shah Qajar, the traces of

1- In the local dialect of Hamedan, cholera is called Wawa. (Feizi, 2018, p. 144)

2- “Epidemic” is the excessive outbreak or incidence of a disease in a certain population. (Tollabi, Rajab Nezhad, and Tajmiree, 2017, p. 34)

3- Ahmad ibn Muhammad Hussein Ahmad al-Sharif al-Husseini Tonekaboni, a Hakim during the reign of Fath Ali Shah and Mohammad Shah Qajar (Tonekaboni, 1880, pp. 1-3)



this contagious and epidemic disease in Iran should be seriously followed from the Qajar period onwards, as Iran has been involved with the outbreak of this disease occasionally like other countries. Meanwhile, most provinces in Iran, including Hamedan and its surrounding cities were affected by the outbreak of cholera during the Qajar era. However, cholera's being contagious is the most important factor in the occurrence of this disease in different places. But other factors and backgrounds could be effective in its exacerbation and incidence. There is some sporadic information in some of works concerning cholera and its prevalence in Hamedan during the Qajar period. Among these works, we can mention the book "Worldwide cholera" by Mansoureh Ittehadiyeh, which focuses on the cholera in Kermanshah and relies on documents related to the reports of the ruler of Kermanshah; she pointed to the outbreak of cholera in Hamedan to some extent. Also, Willem Floor in his work "People's Health in the Qajar Period" has briefly mentioned to the cholera in Hamedan. What has been said in other works about Hamedan is in fact a description of the health situation in the city of Hamedan and other issues that developed the backgrounds for the occurrence of infectious diseases such as cholera, most of which are from the works of tourists. Among these works is Jackson's travelogue "Persia past and present" which mentions the poor health conditions in Hamedan during the Qajar period which is a main factor in the outbreak of disease. In addition, we can refer to the article "Grounds and consequences of famine caused by World War I in Hamedan" by Alireza Ali Sufi and Shahram Ghafouri, in which cholera is referred to as a consequence of famine. In general, no independent and coherent research has been conducted so far on the prevalence of cholera in Hamedan during the Qajar period; Therefore, there is a niche for the subject of this research in the literature of health care history.

#### **Cholera Outbreak in Iran and Hamedan during Qajar Period**

During the 19th and 20th centuries, there were seven major cholera epidemics in the world, and it appeared in Iran seven times between AD 1820-1904 which turned out to be a continuation of world epidemics. Iran's geographical location between India, the Persian Gulf, Russia, and the Mesopotamia has always exposed it to disease outbreaks (Ittehadiyeh, Shams, and Ghafori, 2013, p. 12). The first epidemic occurred in AD 1821 which expanded through Muscat to the Persian Gulf after covering India (Nategh, 2010, p. 274) and then reached Shiraz and Isfahan. After a two-year outbreak in the center of the country, it spread to the shores of the Caspian Sea and then to Russia. Then, the second epidemic originated in India in 1829 entered Iran through Afghanistan and finally left Iran through the northern borders of the Caspian Sea. During the years 1845-47, the third epidemic reached Mashhad and Isfahan from India through Afghanistan, and finally reached Europe through Baghdad. The 1852 Cholera coinciding with the Nasserite era was the fourth epidemic in Iran that remained actively for several years. (Floor, n.d., p. 16) The disease spread from the north to Zanjan and Mazandaran, from the east to Shahrud, from the west to Qazvin and Hamedan and from the south to Shiraz. (Elgood, 1973, p.724) and although the then ruler of Hamedan issued orders to prevent the spread of cholera in the city, Hamedan also contracted the disease (Vaqaye Ittefaqiyeh, 1994, Vol. 1, p. 784). It was spread in Hamedan for a year until the provincial news column of the newspaper Vaqaye-e Ittefaqiyeh reported the end of the disease in Hamedan. (Vaqaye Ittefaqiyeh, 1994, Vol. 2, p. 933).



Fifth epidemic in 1868-69 AD was transferred to Mecca by Indian pilgrims and from there to Iran through Egypt and Iraq (Floor, n.d., p. 16). In the following, the sixth epidemic reached Hamedan from two routes. The first route in late August 1889, was through the port of Bushehr to Behbahan and Khorramabad and another in late September 1889, when the cholera broke out at the border of the Iranian and Ottoman states - Qasre Shirin – and spread from Qasre Shirin to the east and went to Kermanshah through Sarpol-e Zahab and kerend. These two streams reached each other in Hamedan lands and spread vastly in the city center and then to surrounding cities such as Nahavand, Dolatabad, Malayer and Tuysarkan (Ittehadieh, Shams, and Ghafari, 2013, pp. 215-216). Finally, the seventh cholera epidemic broke out in Iran in 1904-1903 (Ittehadieh, Shams, and Ghafari, 2013, p. 13). The main source of this epidemic was India. Thus, the disease was transmitted from Mumbai to Hejaz and from there through a caravan of pilgrims to Iraq and then to Iran and other distant lands (Borrell, 2013, pp. 3, 6). That is, when cholera entered through Mecca and Iraq, through the Persian Gulf and western Iran. (Floor, n.d., p.16), it spread on the way to the west of Iran, after Basra to Kermanshah and from there throughout Iran (Ittehadieh, Shams, and Ghafari, 2013, p. 13). Hamedan was also among the cities in the meantime which was not left behind to cholera outbreak. In 1904 May 27, Regarding the possible outbreak of cholera in Hamedan, it is said: “ For several days now, these rumors have been circulating in Hamedan as well. Mirza Saeed Tabib and the foreigners have also given reports to Tehran. If it is true and it is determined or intensified, the people will be dispersed. God willing, it will not occur. ”(Ittehadieh, Shams, and Ghafari, 2013, p. 134)

As it is shown in Figure 1, according to a telegram dated June 33, 1904 that the ruler of Zanjan sent to Mushir al-Dawla (minister), reported the occurrence of cholera in Hamedan according to the records. (Manuscript Box 6 Folder 2 Serial 14, 1904)

After the outbreak of seven cholera epidemics in Iran, the disease had been sometimes occurring at intervals and widely locally. (Floor, n.d., p. 17)

Farid-a-dowla has mentioned in his memoirs about the outbreak of the cholera in 1910 A.D. In Hamedan: “Monday, October 18, 1910 A.D.- ... as it is written (in reports), an illness has been spread in Hamedan as well.” (Hamedani, 1975, p. 354)

Also in 1915, Cholera was prevalent in Hamedan during the First World War, according to a document (Figure 2) containing the telegram of the Hamedan broker approved by the Chairman of the State Health Assembly (Manuscript Box 29 Folder 10 Serial 66, 1915).

It seems that cholera has occurred on a case-by-case basis in several provinces each year with respect to the level of conditions provided for its outbreak. In the following, the backgrounds and factors effective in the occurrence and spread of this disease in Hamedan from the Nasserite era to the end of the Qajar are discussed.

## **Backgrounds for Cholera in Hamedan**

### **1- Being Contagious**

The most important and obvious cause of cholera outbreak not only in the Qajar period, but in all periods, is the problem of its transmission, so that this factor plays a major role in the spread of the disease which are other aggravating factors.

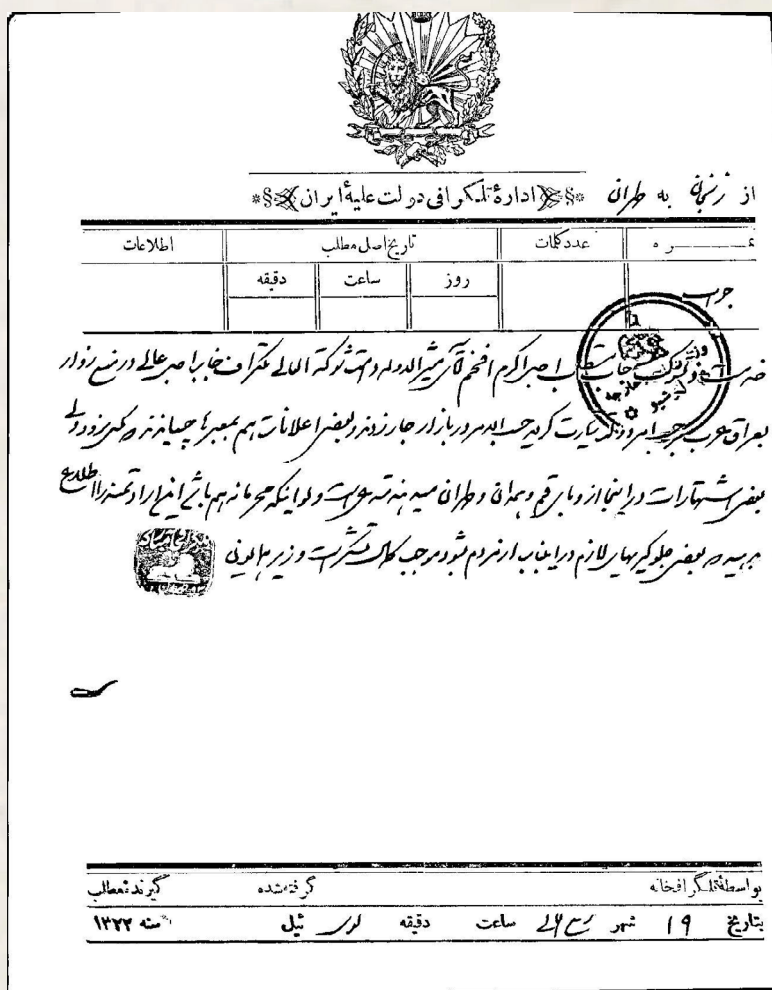


Figure 1. Report of cholera in Hamedan in 1904 A.D. (Manuscript Box 6 Folder 2 Serial 14, 1904)

## 2- Hamedan Geographical location and its Effect on the Incidence and Prevalence of the Disease

Regarding the cholera prevalence and climatic conditions, occurrence of cholera is associated with less rainfall and humidity and higher temperatures and pressures. Cholera generally occurs in hot seasons, and in the case of higher pressures, the risk of pathogenicity increases due to the better ability of the cholera germ to survive and multiply in contaminated surface waters at lower altitudes (Pezeshki, et al, 2009, p. 13). In terms of climate, Hamedan is located in a temperate mountainous climate that has experienced temperatures up to 32 degrees below zero in extreme cold. Another effective factor in the weather conditions of this province is the long distance from the sea and cold air in high pressure streams of north and west (Sadeghiniya, 2018, pp. 12-13). Due to the geographical location of Hamedan, which is a city in the highlands with a mountainous climate, the pressure decreases due to high altitude, so the climatic conditions of Hamedan have a very small role in the prevalence of cholera.



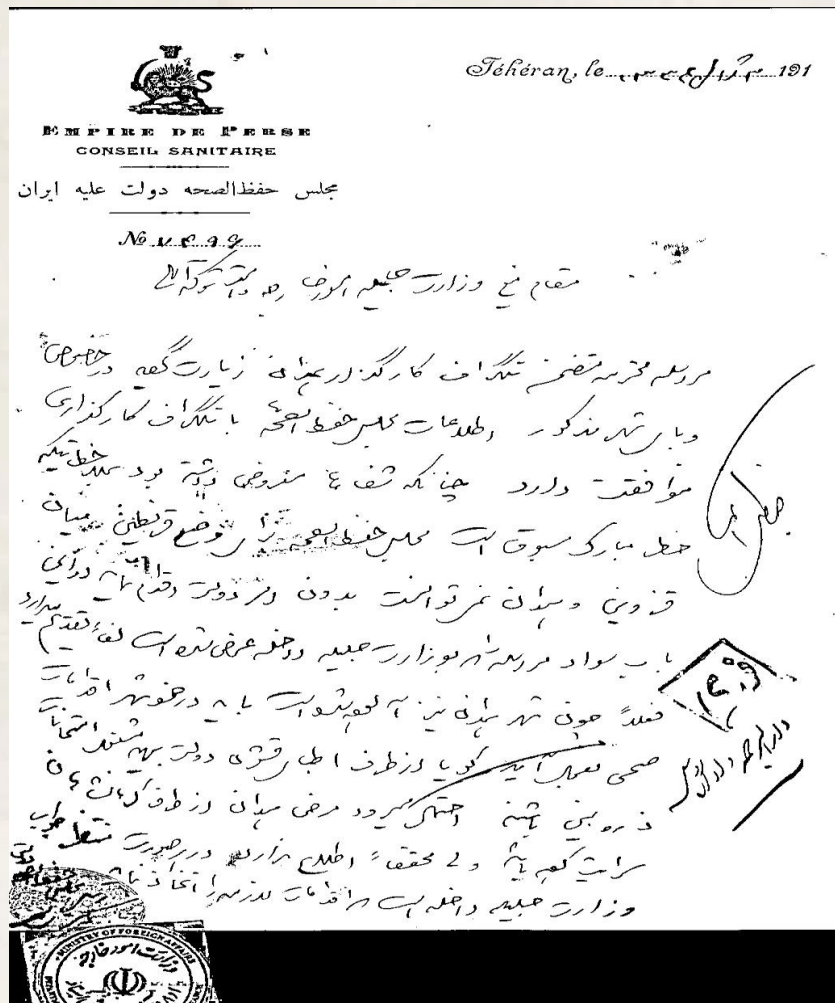


Figure 2. Telegram of the Head of State Medical Council to the Ministry of Foreign Affairs, regarding the cholera Hamedan city. (Manuscript Box 29 Folder 10 Serial 66, 1915)

### 3- War and famine

The outbreak of the First World War and the rivalries of hostile states in Iran made Hamedan their battlefield due to its special geographical location and the connection between the western and southern regions to the central parts of Iran (Asad Bagi, 2005, p.162). Due to foreign military operations and the constant killing and looting, various diseases such as famine, starvation, various diseases took over the people of this country and inflicted many casualties on the Iranians (Muqtader, 1942, p. 367). Famine is the consequence of factors including drought, hoarding and war and a good platform for the spread of all kinds of diseases. In fact, malnutrition, hunger and poverty of the Iranian people in the Qajar period, which usually occurred after famine and drought were the effective factors in the development of diseases such as plague and cholera (Poor Shafei, 2011, p. 127). Cholera also causes famine and it is followed by famine (Nategh, 2010, p. 273).

In the book “Qom in the Great Famine”, it is stated about the famine of 1872 in Hamed-



an province: “The condition in Hamedan became so hard that the flesh was eaten from two thousand people, adults and children, and dogs, cats and other animals the same.” It has even been seen that the dead flesh has been cooked and minced and consumed or sold instead of mutton.” (Mazaheri, 2016, p. 49)

Once again, in the last year of World War I, a widespread massive famine took place across Iran (Majd, 2008, p. 7). One of the mistakes of Amir Afkham<sup>4</sup> and his son, Ehtesham al-Dawla, was creating an false famine in Hamedan and not delivering wheat from his villages to the city’s bakeries (Azhang, 2010, p. 94). The famine caused by the First World War in Hamedan had a direct impact on the prevalence of diseases such as cholera, so that infectious and contagious diseases easily took the lives of famine survivors in war zones due to lack of hygiene and food shortages (Ali soufi and Ghafouri, 2017, p. 186). According to Caldwell, in the spring of 1918, despite the great work of the relief and food committees to thousands of famine victims, thousands of people who could not be helped died of famine and disease, especially in Tehran, Mashhad and Hamedan (Majd, 2008, p. 48). When the hard situation developed by famine cause people do things far from human dignity to satisfy their stomachs, the last resort to meet their needs and to survive is to immigrate to areas with better situation. As a result of immigration, the population decreased in some areas while some other became uninhabited which caused problems for agriculture in that area in the years after the famine. During the famine in 1872 AD, people from some areas such as Hamedan, Khamseh and Mehraban immigrated to Kurdistan, which had better life conditions (Khodadad and Manzoor Al-Ajdad, 2010, pp. 35, 37). The spread of diseases such as cholera increased as a result of war and famine.

#### 4- Lack of Public Hygiene

Among the most important factors in the spread of cholera was the state of public hygiene, including the sanitary conditions of the streets and alleys in Qajar Iran which had no significant sanitary factors. The city streets and the countryside were in such a way that it was very suitable for the spread of infectious and contagious diseases (Poor Shafei, 2011, p. 67). Although all physicians have acknowledged that the cause of illness everywhere is the existence of infection in the streets and air pollution (Vaqa'ye Itfaqiyyeh newspaper, 1994, Vol.1, p. 68), but Hamedan was a very vast stinking village in the Qajar period (Curzon, 1970, p.719) which had narrow and

4- At first, he was the ruler of Kermanshah. It is said that during the occupation of Iran by the Allies, he made peace with the Russians, respectfully brought them to Hamedan and took over the government of Hamedan. (Azkaei, 1988, p. 273)



dirty alleys (Diwanbeigi, 2003, p. 149). “A half-ruined city with narrow and rocky alleys with uphill and downhill ... There are many cemeteries inside the city ... There is a river in the middle of the city which... only in spring the water flows in that. The other seasons are a line of sandstone and garbage dumps that extends from the center of the city, which in most places is used for disposal of bath and urine waste” (Zahir al-Dawla, 1972, p. 88). The winding alleys that passed through the Muslim cemetery in the heart of Hamedan and the stench of infection emanating from the shallow graves, and nothing but the severe cold of winters prevented plague and cholera. Jackson describes the situation in his travelogue: “Apparently there are no regulations for cleaning the streets. It seems that the nature sweepers, the predatory birds are neither doing their responsibilities. Because throughout the two times I visited Hamedan, a dog’s carcass was still lying in one of the busy passages.” (Jackson, 2008, pp. 170-171)

The bazaar of Hamedan was also very dirty and unfavorable (Eyn al-Saltaneh, 1995, p. 381). As it is shown in the Figure 3, in the late Qajar period, a tax was introduced called “Nawaql” to repair the paving of alleys and level the streets and to revive the alleys and

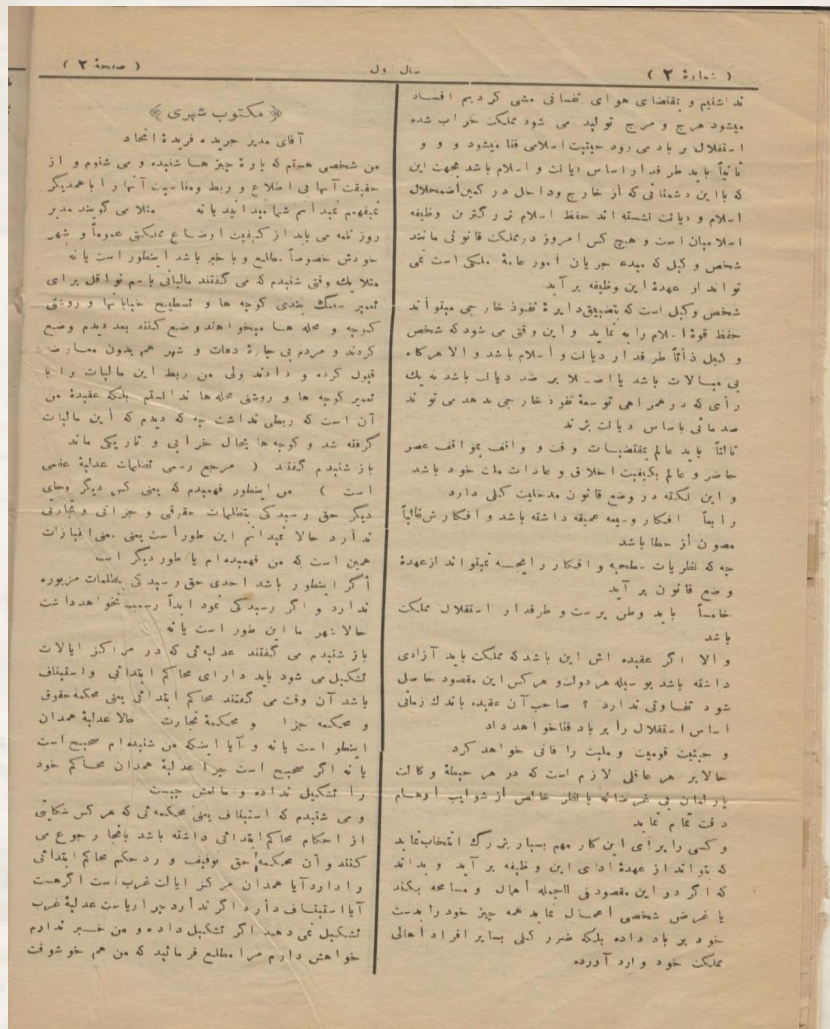


Figure 3. Letter from Hamadani citizen to Etihad newspaper’s editor-in-chief regarding the tax collected from the people of Hamadan to repair their alleys and neighborhoods alongside the lack of necessary measures in this regard. (Urban Letter, 1914, p. 2)





neighborhoods; however, they were ruined and dark in spite of taxing (Urban Letter, 1914, p. 2). Referring to Figure 4, eventually, passages such as Qazvin Gate through the door of Shousa Grand School and Straw Sellers Square, which people previously did not want to cross due to dirt were revived through persistent efforts (Baladiéh's actions, 1914, p. 4). The repair of the passages with people's taxing remained just as a word on a piece of paper, and only the main squares and streets were repaired. In a letter that Aref Qazvini wrote to Dr. Badi al-Hokama two years after the fall of the Qajar dynasty, he stated the following: "During this period, I sometimes read Your Excellency's notes for a few days ... One wrote: I talked to the doctor about the filth of Hamedan and I have not seen such filth in all over Iran; "Unfortunately, an Iranian is nothing more than a talker." (Qazvini, 2017, p. 24) In October 1851, as a result of these failed measures and the existence of polluted passages full of garbage, Hamedan was always at risk of spreading various epidemic diseases. The newspaper Vaqaye Ittefaqiyeh reported the cholera that had started in Kermanshah which dispersed people in fear and the disease incidence. Consequently, the disease spread to Hamedan (Ittehadiyah, Shams, and Ghafari, 2013, p.15). And although the ruler<sup>5</sup> of Hamedan at the time ordered to take the slaughterhouse out of the city to prevent the spread of cholera, and also emphasized on removing the dirt from the alleys and neighborhoods, sweeping, cleaning using water and keeping the alleys and houses clean to remove the cause of the disease so that Hamedan did not become susceptible to the diseases (Vaqaye Ittefaqiyeh, 1994, Vol.1, p. 784); although, Hamedan experienced the epidemic.

As it is shown in Figure 5, also, on the 1890 cholera spread in Iran, the condition of filth in Hamedan city became alarming to the doctors, who said cholera would spread to Hamedan city as well, unless the filth is removed (Manuscript No. 295-007997-0158, 1889).

### **5- Poor Personal Hygiene**

Poor personal hygiene also increased the spread of the disease. People were unaware of the most basic principles of sanitation (Tollabi, Rajab Nezhad, and Tajmiree, 2017, p. 55). As in the Qajar period, cleansing the body to promote personal health still had a long way to go. It was only possible where there was a public bathroom. However, having enough baths did not necessarily mean better general health. Unfortunately, it was very common for a person to take a bath after an infectious disease, so a public bath is a place

5- Assadollah Khan Qajar was the ruler of Hamedan in 1269 AH and in 1270 AH he was nicknamed Motamed-ol-Molk and ruled Hamedan until 1276 AH (Asad Bagi, 2005, p. 132)



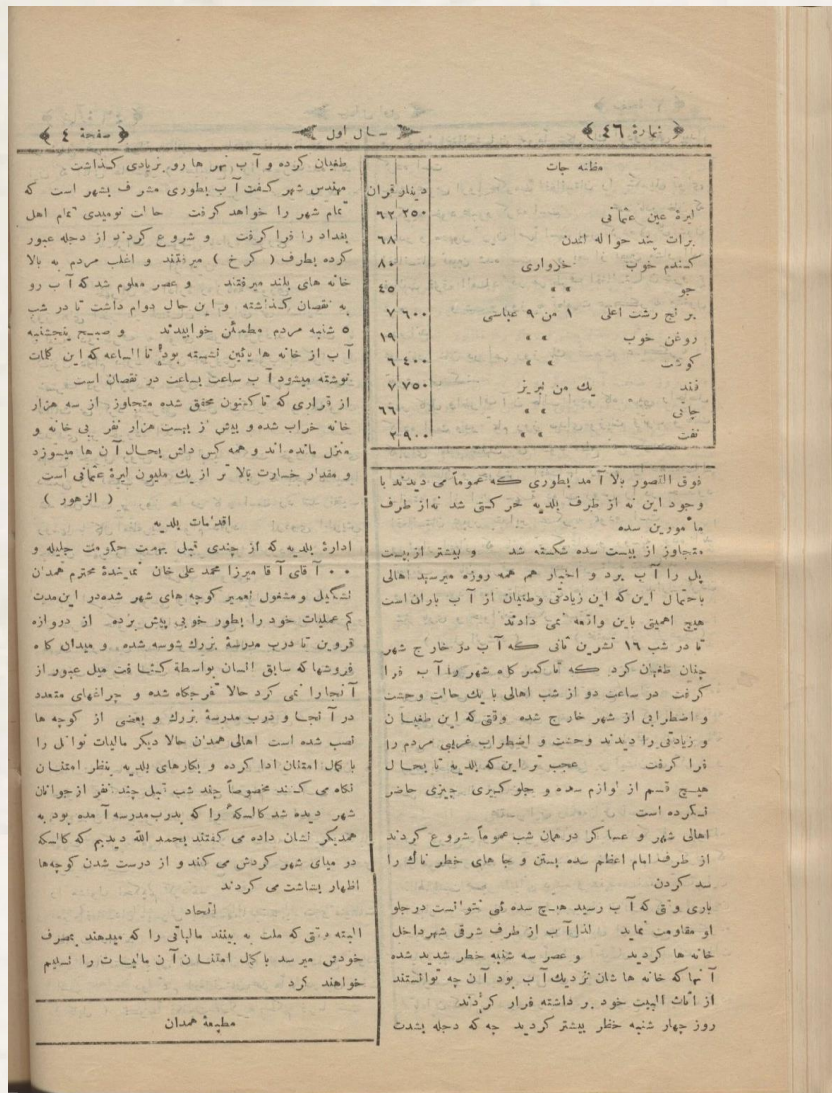


Figure 4. Hamadan Baladieh's actions (municipality) to repair Hamadan alleys, improve the lighting, and remove garbage from some city squares. (Baladieh's actions, 1914, p. 4)

for the spread of respiratory, skin, trachoma, fungal and intestinal infections (Floor, n.d., pp. 77-78). People in Hamedan did not have more than one bathroom with plunge bath in each area (Wiles, 1989, p. 112). The water in plunge bath was generally changed once a week. On other days, a worker of the bath or the very person in charge would go into the plunge bath in the morning and start to remove the hair, foam and dirt which was in the form of a layer on the water resulted from taking bath in the previous day with a container called "Dolche" (small bucket) (Qaragzloo, 2009, p. 457), so that the water become clean before the people enter the bathroom. Aref Qazvini, a constitutionalist poet who resided in Hamedan after the fall of Qajar wrote in his memoirs about the condition of bathrooms in that period which was still in the style of Qajar Kingdom: "In this city, I took refuge in the Jewish baths due to the filth of our own baths" (Qazvini, 2017, p. 143). The water used for cleaning, washing and bathing of the people of Hamedan was generally supplied through rivers that flowed from the foothills of Alvand Mountain,



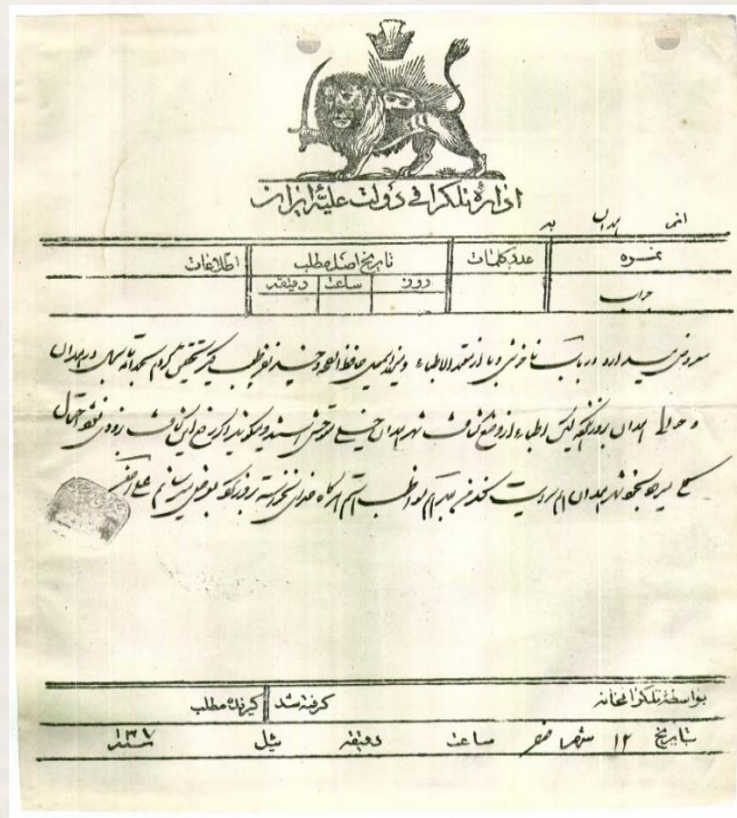


Figure 5. Expressing concern of Hamedan doctors about the unfavorable health situation in Hamedan and the possibility of cholera in this city (Manuscript No. 295-007997-0158, 1889)

especially from the heart of “Moradbeik Valley” to Hamedan. The open and uncovered rivers which became more and more polluted as they went further due to the openness and lack of observance and caution of the people. Because in addition to washing clothes, carpets, wool, skin, cows, sheep, and other livestock, garbage from houses and shops were disposed into it, from time to time there was a hole in the river through the holes and wells of toilets in houses (Qaragzloo, 2009, p. 455). If anyone wonders how water causes the spread of cholera, the answer is that plague diarrhea as it occurs in the water closet, it gradually makes the earth dirty, and that dirt gradually enters the aqueducts, especially the aqueducts that are located near the water closets, and everyone from If the aqueducts drink water will undoubtedly get cholera. (Ittehadieh, Shams, and Ghafari, 2013, p. 220) In Toyserkan, people believed that the water in the plunge was very useful for treating wounds and skin diseases. Therefore, as soon as they entered the plunge bath, some people put some water in their noses or poured it into their mouths and gurgled, believing that it was useful for chest pain, shortness of breath, colds and other diseases of the throat and nose. (Moghadam Gol Mohamadi, 1992, pp. 321, 337). In addition, the most common way of transmitting cholera in Iran is contaminated vegetables, especially vegetables that are fed with human fertilizer when planted (Zia Al-Mahmoud, 2020, p. 19). In Tuyserkan, they sometimes used bath sewage or water that was affected by the infiltration of toilet sewage for irrigating vegetables. Naturally, vegetables were infected



with a variety of microbes. Therefore, intestinal diseases such as typhoid, dysentery and even cholera-type diseases were abundant (Moghadam Gol Mohamadi, 1992, p. 314). Therefore, (Figure 6) when cholera broke out, the government at the time intervened and prevented the sale of rotten fruit, which resulted in a reduction in the number of cholera deaths (Manuscript No. 295-7975-136, 1889). As it is shown in Figure 7, however, Grocery stores received re-authorization of the sale by paying bribes and brought rotten fruit to market which was reported to higher officials through telegraphs (Manuscript No. 295-007765-0037, 1889). Lack of familiarity with the methods of food disinfection or the insignificance of this issue for most people was an important factor leading to easy transmission of the disease.

### 6- Lack of Awareness and Adherence to Superstitions

Adherence to superstitions in the Qajar period has been a consequence of lack of knowledge and an effective factor in the outbreak of epidemics such as cholera, People did not seek for rational solution to survive, and took refuge in superstitions and some religious teachings. These deep-rooted superstitions in people's minds were the most important obstacle in improving and educating about health and hygiene (Tollabi, Rajab Nezhad, and Tajmiree, 2017, pp. 75, 268).

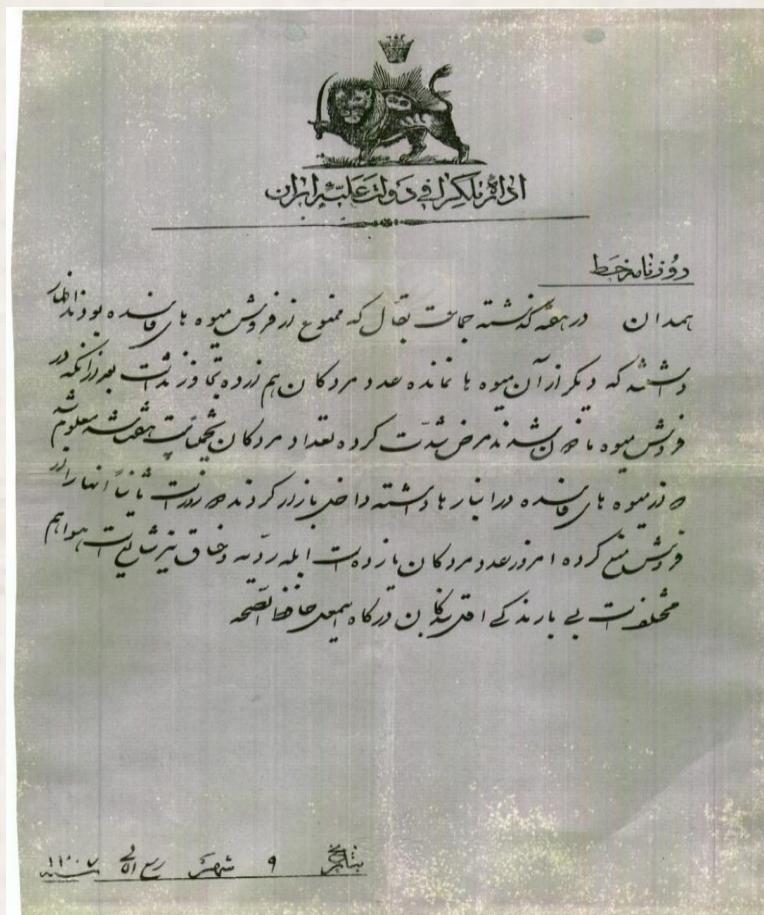


Figure 6. Report on banning Hamedan groceries from selling rotten fruits in case of cholera (Manuscript No. 295-7975-136, 1889)



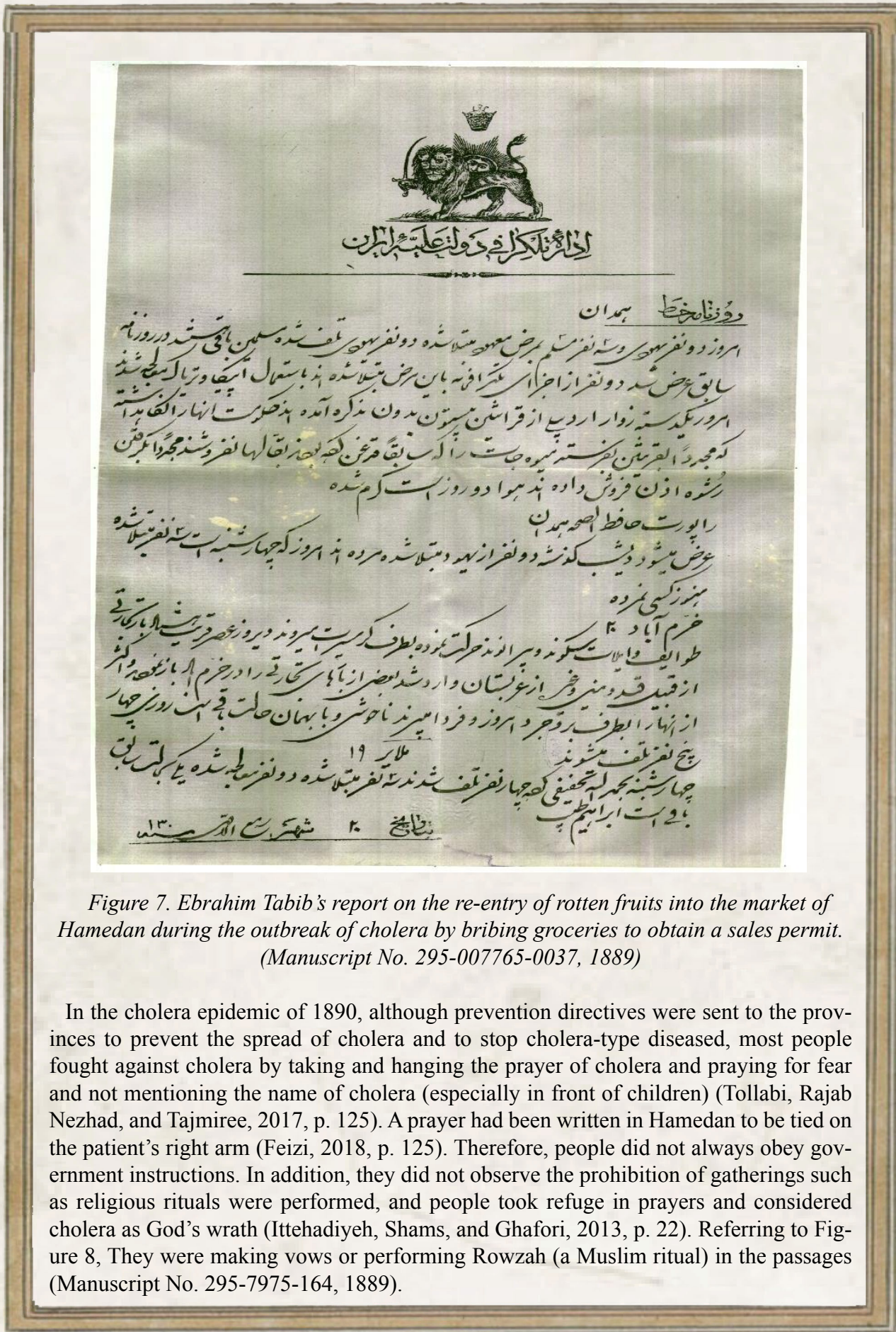


Figure 7. Ebrahim Tabib's report on the re-entry of rotten fruits into the market of Hamedan during the outbreak of cholera by bribing groceries to obtain a sales permit. (Manuscript No. 295-007765-0037, 1889)

In the cholera epidemic of 1890, although prevention directives were sent to the provinces to prevent the spread of cholera and to stop cholera-type diseases, most people fought against cholera by taking and hanging the prayer of cholera and praying for fear and not mentioning the name of cholera (especially in front of children) (Tollabi, Rajab Nezhad, and Tajmiree, 2017, p. 125). A prayer had been written in Hamedan to be tied on the patient's right arm (Feizi, 2018, p. 125). Therefore, people did not always obey government instructions. In addition, they did not observe the prohibition of gatherings such as religious rituals were performed, and people took refuge in prayers and considered cholera as God's wrath (Ittehadiyeh, Shams, and Ghafari, 2013, p. 22). Referring to Figure 8, They were making vows or performing Rowzah (a Muslim ritual) in the passages (Manuscript No. 295-7975-164, 1889).

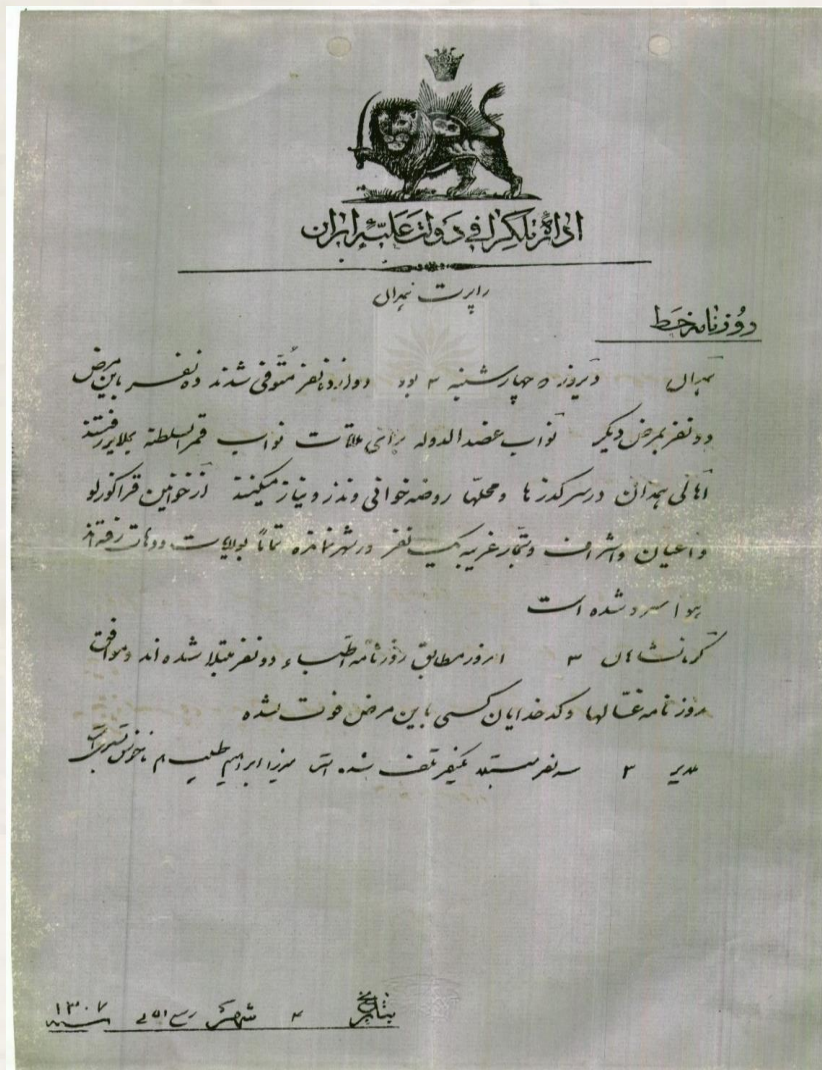


Figure 8. Reporting the Rowtha ceremony of the people of Hamedan during the outbreak of cholera and that the officials and wealthy people of Hamedan left the city in these conditions and went to the provinces and villages. (Manuscript No. 295-7975-164, 1889)

On the other hand, as people of Hamedan carried out self-medication in a background of superstitions caused them not to consult a doctor which was another factor in increasing the number of deaths; As it shown in Figure 9, as Ismail Khan, the caretaker in Hamedan in his December 18, 1890 report states that “these days the number of sufferers cannot be determined because they often do not go to the doctor and are wasted within three or four hours” (Manuscript No. 295-007765-0035, 1889). What appeared in the shape of treatment was some simple-hearted people believed that drinking the Sayyids’ saliva or the remaining of what they had drunk would protect them from any kind of harm and disease and even cure the patients permanently (Qaragzloo, 2009, p.437). An action that was the main cause of transmission of various diseases such as cholera.



### 7- The Performance of the Rulers of Hamedan in the Qajar Era

The government of the time was directly responsible for the spread and consequences of cholera. When illness arose, the rulers preferred to scape; by hiding the truth and obvious deception, they left the people in the lurch, and the agents did not announce the bad news to other countries for the fear of blocking the roads (Nategh, 2010, p. 291). In 1904 A.D, the plague of cholera broke out in Hamedan and cholera remained in Hamedan for four months, while the casualties reached 400 people per day. As soon as the cholera broke out, the ruler of Hamedan, Salar al-Saltanah departed to remote areas of Alvand Mountain with his family and personal servants, and daily supplies were provided and sent to him by Sadr al-Ashraf from his court servants. Whoever and whatever was leaving the city should be delayed for a day or two, so that he and the goods that were sent should be given sulfur (Sadr, 1985, p. 113). In fact, escaping from the air of plague has been proposed and emphasized as one of the ways of prevention, but immigration during illness was a costly affair which was not easily possible for the lower classes (Zia al-Mahmoud, 2020, p. 25). As Khans and nobles from Qaraguzlu<sup>6</sup> and foreign merchants preferred not to stay in Hamedan and all went to the provinces and villages. In fact, the Qajar rulers were going to remote places earlier than the rest of the people to survive instead of finding a solution (Tollabi, Rajab Nezhad, and Tajmiree, 2017, p. 8). In any case, those who could afford it fled from the city and the countryside, and those who remained recited prayers and Qur'an (Floor, n.d., p. 21). However, the treatment of cholera in this period was placed in the shadow of the two parts of cold and warm diseases based on traditional medicine. In ordinary people's opinion, cholera was hot-tempered, so the patient was treated in the same way as the cold therapy that was practiced all over Iran, in which the patient was soaked in cold water and given sour grape juice. Arguing that shivering is effective in treatment, many deaths due to cold therapy confirmed the lack of beneficial results of this method. However, the use of cold water was the most important treatment around 1850 AD, while its practice was somewhat reduced in the 1880s (Floor, n.d., pp.18-21). In addition to cold therapy, according to Figure 7, other treatments were used such as smoking opium to treat the cholera patient in the 1890 cholera (Manuscript No. 295-007765-0037, 1889). However, as a precautionary measure, people did not visit cholera patients as much as possible (Feizi, 2018, p. 125).

6- A sub-branch of the Oghuz Turks (Alvandi, 2018, p. 8) who took over the government of Hamedan from the time of Fath Ali Shah (Sadeghin-iyah, 2018, p. 47)



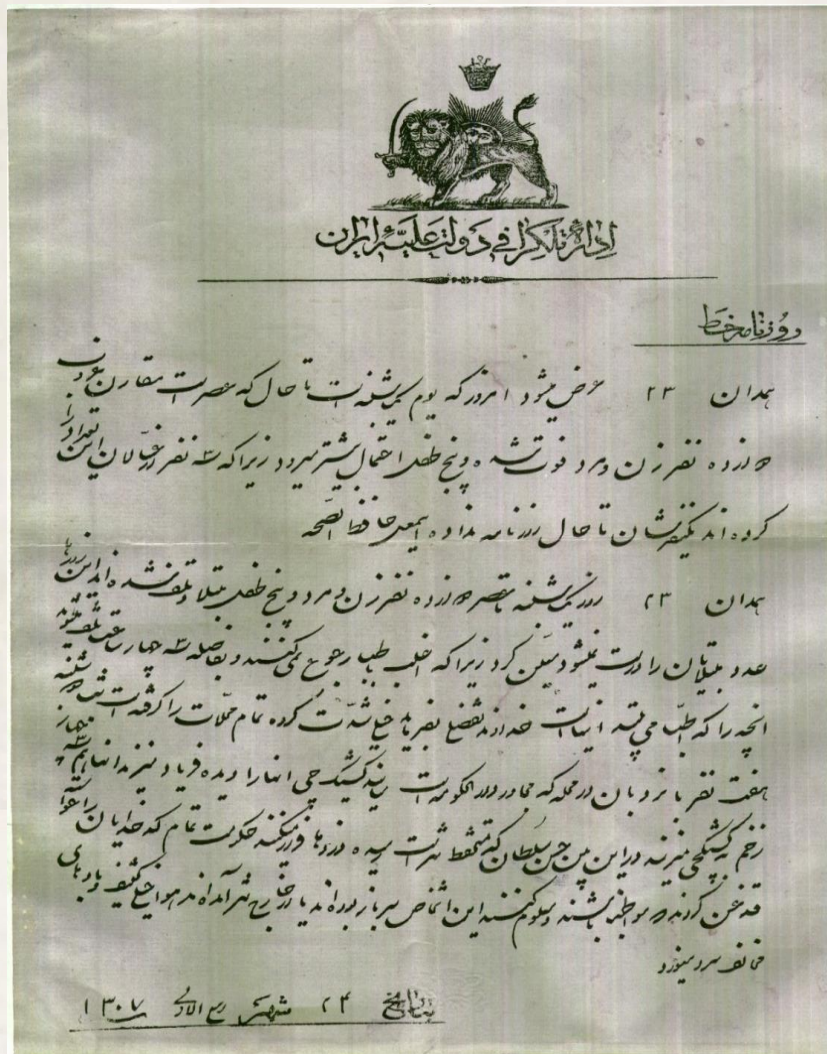


Figure 9. Report of non-referral of Hamedan people to doctors during cholera. (Manuscript No. 295-007765-0035, 1889)

Another method of treatment was prayers from Islamic holy books that prayer-writing physicians sold to patients (Floor, n.d., p. 116). According to Seyyed Mir Abedin Ojaq, a prayer-writer in the late Qajar period in Hamedan, Ayah 64 from Surah An'am with few lines of prayer were written and tied to the right arm of the cholera patient (Feizi, 2018, p. 125).

### 8- Lack of Adherence to Quarantine and its Necessary Requirements

In addition to promoting personal and public health and hygiene, the only effective way to survive from this widespread event was undoubtedly to prevent cholera from entering the country and its spreading. This approach required strong quarantine services (Floor, n.d., p. 17), since the cholera was transmitted by caravans of pilgrims to Mecca, Iraq and Iran most of the time (Ittehadiyeh, Shams, and Ghafori, 2013, p. 19). Upon the establishment of Dar-al-Fonun School, The Medical Council (Hefz-o-sehe, Assembly of





health maintenance) was initially formed informally with the focus on infectious diseases and their prevalence in different provinces of Iran. Among the important decisions in its first official meeting on March 28, 188 was the establishment of quarantine on the Iran-Iraq border and the port of Bushehr, as well as the ban on pilgrimage to the holy shrines due to the spread of infectious diseases, including cholera. The members of this council, who were mostly teachers of the Dar al-Fonun, were in contact with the governors of the states and provinces and the health care officials of the Arab Iraq and the Ottoman government to prevent the spread of common diseases. Since physicians were sent to different parts of the country by the Medical Council (Rostaei, 2003, p. 146), it seemed that the responsibility of setting up quarantines and the supervision was provided by physicians sent by the Medical Council who were teachers of Dar-al-Fonun. According to the documents, Dr. Albu<sup>7</sup> and his presence in the western provinces during the outbreak of cholera are thought to be so. Meanwhile, Hamedan, which was not far from the Iranian-Ottoman border in the west and the passage for pilgrims to Atbat, became infected with the dangerous disease sooner than other parts of the country as soon as cholera broke out. Establishing a quarantine to fight cholera had little effect for a number of reasons (Tollabi, Rajab Nezhad, and Tajmiree, 2017, p. 111). The quarantine camps were poorly run, which in turn led to the spread of the disease. On the other hand, they could set up the camps in the place where the cholera broke out. The expenses of the camp were also taken from the taxes of the people, which made the people very dissatisfied. The Iranians' distrust and suspicion of the foreign customs officials who had been entrusted with the quarantine administration caused public dissatisfaction. This opposition was greater among the pilgrims (Ittehadiyah, Shams, and Ghafori, 2013, pp. 19-20). As it is shown in Figure 10, when the 1889 broke out at the border of Iran-Ottoman governments, Dr. Albu from Hamedan sent a telegram to Amin al-Molk in Tehran informing him of the contents of Hesam al-Molk's telegram on October 6, 1889 to prevent the spread of cholera in the western provinces of Iran, stating that cholera had been found in Kermanshah for several days, and quarantine was required to prevent its spread (Manuscript No. 295-007693-0109, 1889). According to the Figure 11, the next day, Hesam al-Mulk, the ruler of Kermanshah also telegraphed to Amin al-Mulk that Hakim Albu from Hamedan requested the establishment of a quarantine on the site. Although it is possible to get all the necessities here, there is not any tent here. I sent

7- Dr. Albu, a Prussian physician (Germany) who was employed during the reign of Nasser al-Din Shah in 1883. He was hired by the Iranian government to teach at the Dar al-Fonun school by Ali Gholi Khan Hedayat (Mukhbar al-Dawla), the then Minister of Science. (Mukhbar al-Dawla). In 1890, he taught medicine in Dar al-Fonun, and for some time was the caretaker of the Government House, which was built for the use of the troops. (Rostaei, 2003, p. 262)



what I had to the Gasr-e-Shirin. Quarantine requires a hundred tents at the site (Manuscript No. 295-007693-0049, 1889). There was no further one month since Dr. Albu's quarantine requests for quarantine until the emergence of cholera in Hamedan. Cholera moved across Ghasr-e-Shirin to Sahneh, Kangavar and finally reached Hamedan in November 1889 according to the documents (Manuscript No. 295-007765-0035, 1889; Figure 9)

Quarantine was established in the first site of cholera outbreak, as in the case of Hamedan it was a province near the western border. According to the mentioned documents, upon the spread of the disease, first on the border of Iran and the Ottoman Empire - Qasr Shirin - and then with the arrival of the disease inside Iran, it was set up in Kermanshah and Sahneh and finally in the closest city to Hamedan, namely Kangavar. However, according to Figure 12, the establishment of quarantine was accompanied by problems such as the lack of tents to accommodate pilgrims, lack of food, water and bread to feed them who were ultimately led to the fear of rebellion. (Manuscript No. 295-007693-0096, 1889) In addition, according to Figure 13, although the quarantine was established, the pilgrims who came from the holy shrines passed by and did not enter the quarantine which itself lead to the spread of the disease (Manuscript No. 295-007693-0051, 1889). This was due to the profiteering view of government officials towards quarantine (Tollabi, Rajab Nezhad, and Tajmiree, 2017, p. 232) On the other hand, Turkish officials did not act on discipline and the Iranians in particular were distrustful of them (Ittehadiyeh, Shams, and

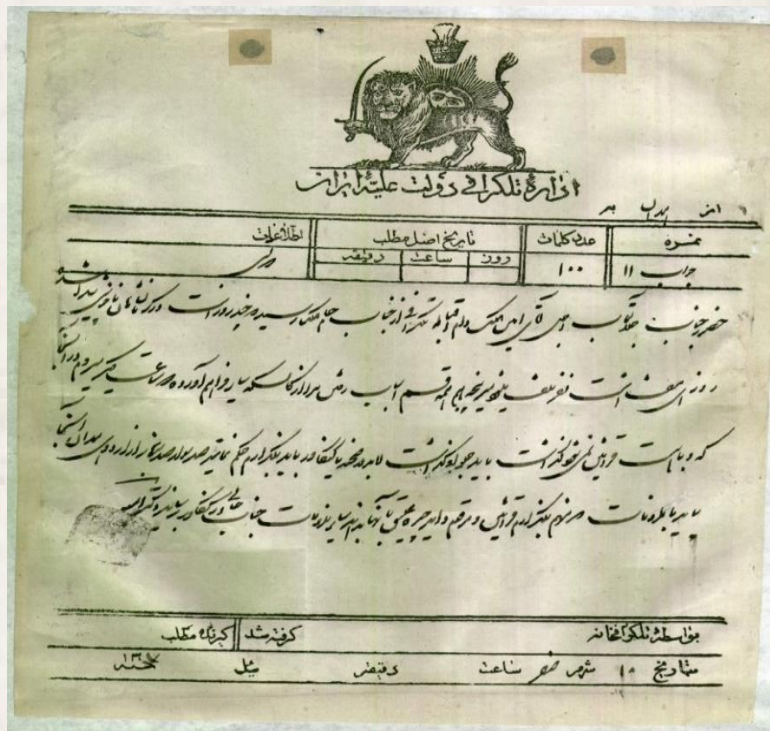


Figure 10. Report of sending Dr. Albu's telegram to Amin Al-Molk in Dar al-Khalafah to inform him about the outbreak of cholera in Kermanshah and requesting the necessities to set up a quarantine to prevent its spread. (Manuscript No. 295-007693-0109, 1889)



Ghafori, 2013, p. 27). As it is shown in Figure 14, despite such barriers, the establishment of quarantine has not been such ineffective in reducing the spread of cholera; according to the available documents date back to 1910, Dr. George<sup>8</sup>, the chairman of Hefzo-Seheh assembly requested that quarantine to be established on the Ottoman border for the possible outbreak of cholera in Hamedan in a telegram to the Ministry of Foreign Affairs, and also he asked that pilgrims not receive the passport to visit holy sites so that the Cholera should not be spread in Hamedan (Manuscript Box 36 Folder 22 Serial 12-1.2, 1910). In addition, on October 14, 1910 A.D. (Figure 15), Husseingholi Nami requested the consulate general of Tbilisi to establish quarantine on the border of Ottoman and not to issue passport to pilgrims due to the presence of cholera in Hamedan in order to prevent its spread to other places (Manuscript Box 36 Folder 22 Serial 212, 1910). These letters have shown the positive effect of quarantine in preventing the further spread of cholera, which the further spread of the disease would be reduced if other components were observed in parallel.

8- Physician and professor of internal physiology and pathology at the Dar al-Fonun in 1905. He came to Iran from France and left Iran in 1911 after 6 years of residence. (Rostaei, 2003, p. 266)

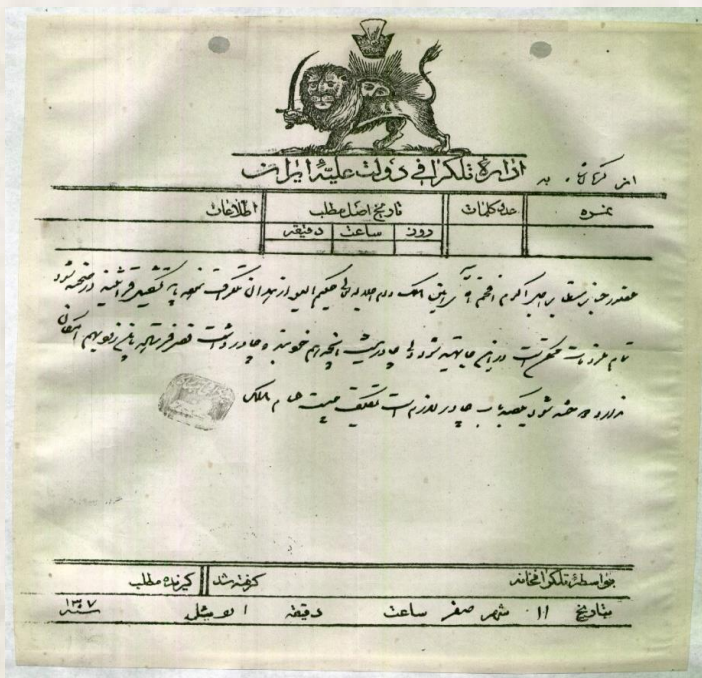


Figure 11. Report on the assignment of Hesam Al-Molk, the ruler of Kermanshah, from the center due to Dr. Albu's request for the need to set up a quarantine to prevent the spread of cholera and its arrival in Hamedan and the lack of tents for this purpose. (Manuscript No. 295-007693-0049, 1889)



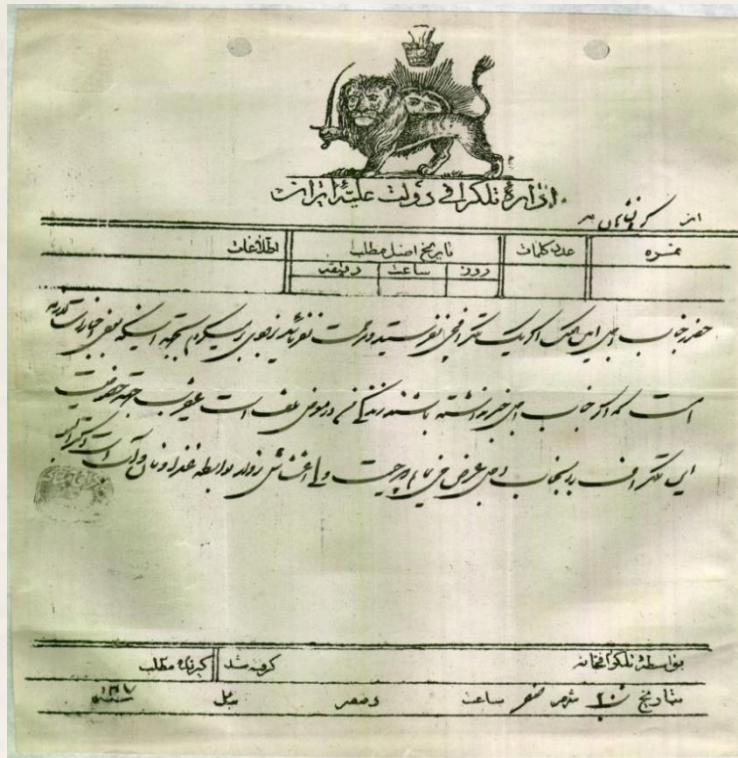


Figure 12. Dr. Albu's report on the disturbance of the pilgrims due to the lack of water and food. (Manuscript No. 295-007693-0096, 1889)

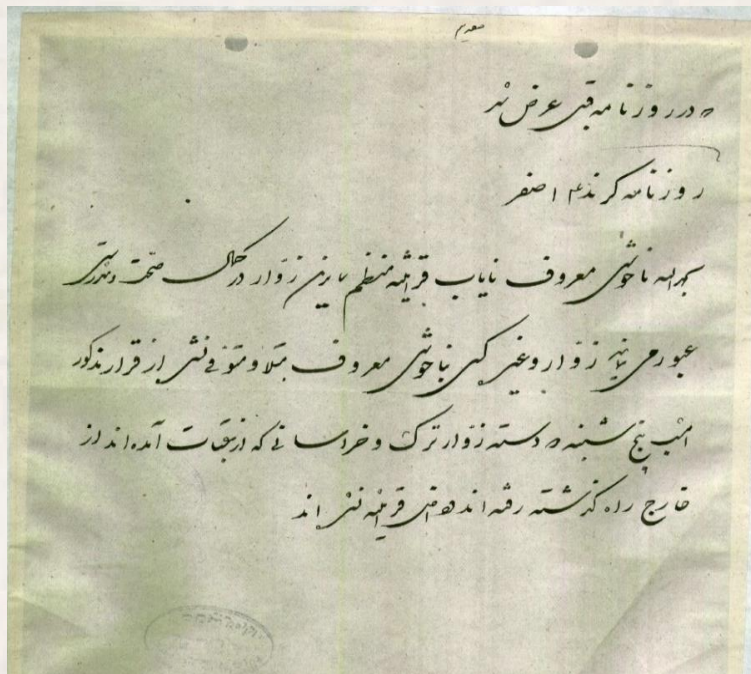


Figure 13. Report of non-adherence of some pilgrims to the quarantine and their arrival in the city despite the warning of the spread of the disease. (Manuscript No. 295-007693-0051, 1889)

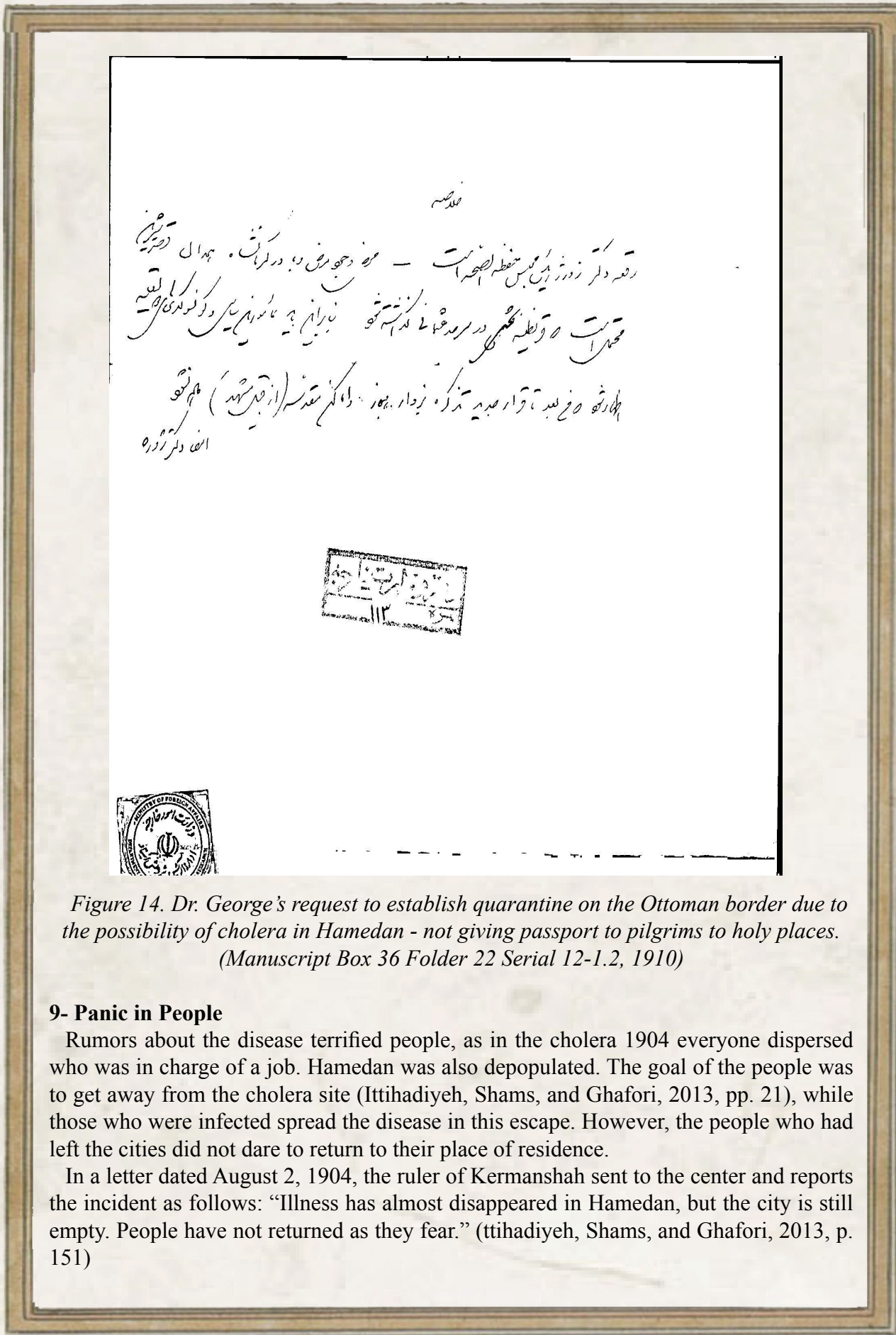


Figure 14. Dr. George's request to establish quarantine on the Ottoman border due to the possibility of cholera in Hamedan - not giving passport to pilgrims to holy places. (Manuscript Box 36 Folder 22 Serial 12-1.2, 1910)

**9- Panic in People**

Rumors about the disease terrified people, as in the cholera 1904 everyone dispersed who was in charge of a job. Hamedan was also depopulated. The goal of the people was to get away from the cholera site (Ittihadiyeh, Shams, and Ghafari, 2013, pp. 21), while those who were infected spread the disease in this escape. However, the people who had left the cities did not dare to return to their place of residence.

In a letter dated August 2, 1904, the ruler of Kermanshah sent to the center and reports the incident as follows: "Illness has almost disappeared in Hamedan, but the city is still empty. People have not returned as they fear." (Ittihadiyeh, Shams, and Ghafari, 2013, p. 151)



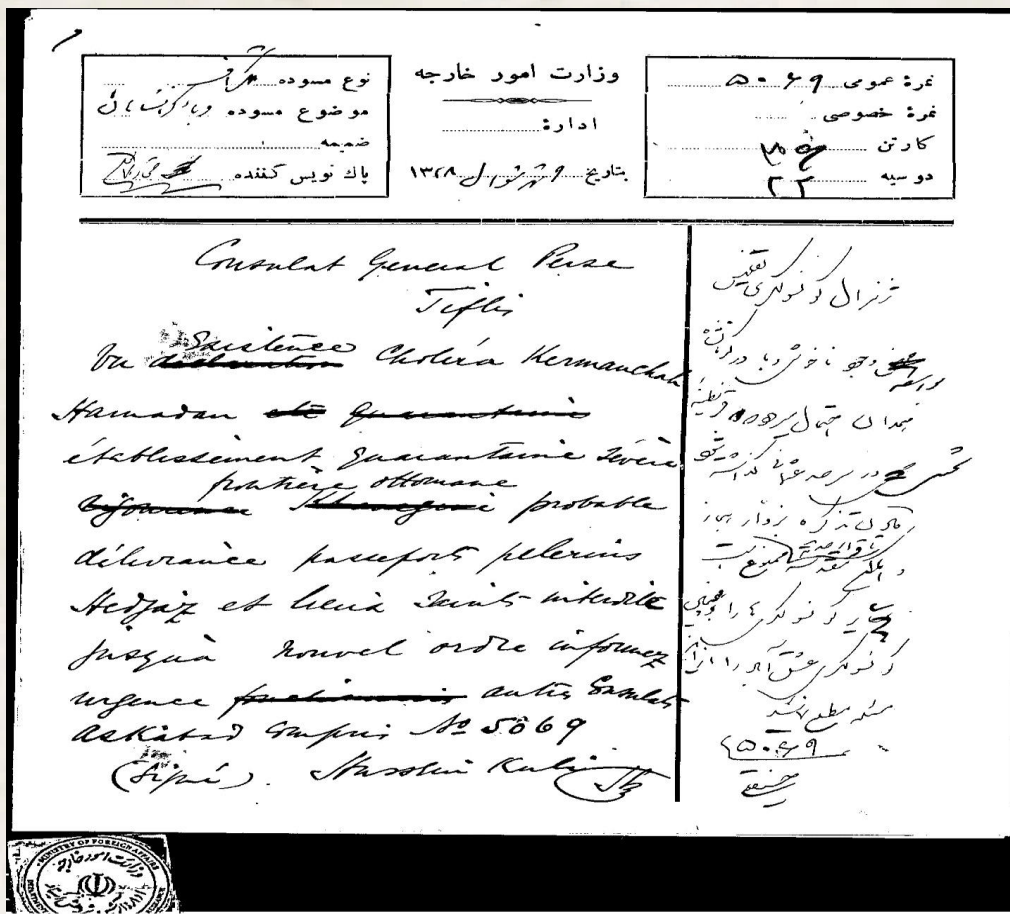


Figure 15. Outbreak of cholera in Hamedan and Kermanshah and Husseingholi's request for the name of the Consul General of Tbilisi to establish quarantine on the Ottoman borders and not to give visas to the pilgrims of the Holy Places. (Manuscript Box 36 Folder 22 Serial 212, 1910)

**Conclusion**

The outbreak of cholera epidemic in Hamedan during the Qajar period was the consequent of all the factors involved in the spread of this disease. Malnutrition, due to the lack of adequate food during the war and famine, as well as the monopoly of the rulers had made the physical condition of the people more susceptible to various diseases, including cholera. On the other hand, World War I and the seizure of Hamedan between its hostile forces was an indirect factor in prolonging the famine and the consequences of the presence of foreigners in Hamedan. Above all factors, the government which had all the powers at the top of the pyramid of society has the most prominent role. Because the government of any country is obliged to provide the comfortable means and comfort of its nation in all dimensions (cultural, social, economic); Therefore, since the performance of the rulers of Hamedan during the Qajar period along with the performance of the central government was authoritative and in most cases acted arbitrarily, so their lack of adherence to rule and rule-based governance lead to some situations and strengthen the negative effects of other factors in prevalence of Cholera in Hamedan. In fact, creat-



ing a suitable sanitary environment for people, both individually and publicly, including providing safe drinking water, monitoring the hygiene of baths, assessing the health of food, allocating financial resources to repair alleys and passages, as well as providing sufficient supplies for establishing a quarantine and appointing Iranian Muslim agents to monitor the quarantines is one of the main duties of the government and the executor of its orders, namely the governors of the provinces. It may be said that the spread of superstition among the people of that time was partly due to the fact that they had given up hope of government supporting had become superstitious and sought their salvation and healing through words and prayers. Also, the lack of an official center by the government to inform the public about the true news about cholera and related issues could have increased the spread of superstition and rumors. The prominent role of the Turkish rulers of Hamedan in inciting famine and abandoning the people during their illness has been a strong reason for their authoritarianism. Perhaps the lack of racial kinship of this Turkish tribe with the people was one of the reasons why these rulers did not pay attention to the situation of the city and the conditions of the people of Hamedan. In addition to the government's failure to establish quarantine and delay in providing supplies for pilgrims, the lack of adherence to quarantine by people was another factor in the spread of the disease. we can finally conclude that if the performance of the government and in parallel with the ruling power of Hamedan were based on the law, the effect of other factors in the spread of cholera would be very small.

#### **Acknowledgements**

This article has been extracted from a master's student thesis.

#### **Conflict of Interest**

None.

#### **References**

- Ali soufi, A.R., and Ghafouri, Sh., 2017. The reasons and Aftermaths of First World War-induced Famine in Hamedan. *Social History Research Quarterly*, 7(2), pp. 173-190.
- Alvandi, R., 2018. *Qaragzloos and their role in the sociopolitical of Hamedan*. Tehran: Negarestan Andisheh.
- Amid, H., 2010. *Amid Dictionary*. no place: Rah-e Roshd Publishing.
- Asad Bagi, H., 2005. *History of Hamedan, from Khwarezmian Empire to the late Qajar*. Hamedan: Maftoon Hamedani Publishing.
- Azhang, N., 2010. Hamedan in the Qajar Period. *Journal of Demographic Culture*, 35-36, pp. 86-111.
- Azkaei, P., 1988. The Qaragzloo of Hamedan, the dynasty of Amir Afkham Shorini (Part 3). *Future Magazine*, 14(8-6), pp. 266-278.
- Baladie's actions (municipality)*, 1914. Ittehad Newspaper No. 46, 28 December. 1st Year.
- Borrell, A.R.M., 2013. Cholera epidemic in Iran (1904 AD): Some dimensions of Qajar society. Translated by F. Farzi and Z. Nazar Zadeh. *Kheradnameh Publication*, 4(11), pp. 1-22.
- Curzon, J.N., 1970. *Iran and the Iranian Case*. Vol. 1. Translated by G. Vahid Mazandarani.



Tehran: Book Translation and Publishing Corporation.

Diwanbeigi, H., 2003. *Divan Beigi Memories*. edited by Iraj Afshar and Mohhamadrasol Daryagasht. Tehran: Asateer.

Elgood, C.L., 1973. *Medical history of Iran from ancient times to 1934*. Translated by M. Javidan. Tehran: Eghbal.

Eyn al-Saltaneh (Ghahraman Mirza Salour), 1995. *Magazine of Memoirs of Eyn al-Saltaneh (Era of Nasser al-Din Shah Reign)*. Vol. 1. Edited by M. Salour, I. Afshar. 1st Edition. no place: Asatir Publishing.

Feizi, A., 2018. *Folk medicine in Hamedan*. Tehran: Talaie.

Floor, V., n.d. *Iranian People's Health in the Qajar Period*. Translated by I. Nabi Pour. no place: Publications of Busher University of Medical Sciences and Health Services.

Hamedani, Mirza Mohammad Ali Khan (Farid al-Molk), 1975. *Farid Memories*. Compiled by M. Farid (Qaragzlou). Tehran: Zawar Publishing.

Ittehadiyeh, M. (Nezameh mafee), Shams, A., and Ghafori, A., 2013. *Contagious Plague*. Tehran: Iran history Publishing.

Jackson, A.V., 2008. *Jackson Itinerary (Iran in the past and present)*. Translated by M. Amiri and F. Badriee. Tehran: Ministry of Culture and Higher Education.

Khodadad, M., and Manzoor Al-Ajdad., 2010. Social Aftermaths of the Famine Occurred in the Nasserite Era. *Journal of Islamic and Iranian History*, 20 (7), pp. 21-43.

Majd, M.Gh., 2008. *The Great Famine 1919-1921*. Translated by Mohhamad Karimi. Tehran: Political Studies and Research Institute.

Manuscript Box 29 Folder 10 Serial 66, 1915. [Manuscript]. October 8. Held at: Archives of the Ministry of Foreign Affairs Documentation Center.

Manuscript Box 36 Folder 22 Serial 12-1.2, 1910. [Manuscript]. October 8. Held at: Archives of the Ministry of Foreign Affairs Documentation Center.

Manuscript Box 36 Folder 22 Serial 212, 1910. [Manuscript]. October 8. Held at: Archives of the Ministry of Foreign Affairs Documentation Center.

Manuscript Box 6 Folder 2 Serial 14, 1904. [Manuscript]. October 8. Held at: Archives of the Ministry of Foreign Affairs Documentation Center.

Manuscript No. 295-007693-0049, 1889. [Manuscript]. October 7. Held at: Archive of the National Documentation Center.

Manuscript No. 295-007693-0051, 1889. [Manuscript]. Held at: Archive of the National Documentation Center.

Manuscript No. 295-007693-0096, 1889. [Manuscript]. October 16. Held at: Archive of the National Documentation Center.

Manuscript No. 295-007693-0109, 1889. [Manuscript]. October 6. Held at: Archive of the National Documentation Center.

Manuscript No. 295-007765-0035, 1889. [Manuscript]. November 18. Held at: Archive of





the National Documentation Center.

Manuscript No. 295-007765-0037, 1889. [Manuscript]. November 14. Held at: Archive of the National Documentation Center.

Manuscript No. 295-007997-0158, 1889. [Manuscript]. October 8. Held at: Archive of the National Documentation Center.

Manuscript No. 295-7975-136, 1889. [Manuscript]. October 3. Held at: Archive of the National Documentation Center.

Manuscript No. 295-7975-164, 1889. [Manuscript]. November 28. Held at: Archive of the National Documentation Center.

Mazaheri, A., 2016. *A Survey to the Merianaj History and Culture*. Hamedan: Barakat Kowsar Publishing.

Mehri, F., 2002. *Nursing and Mothers and Infants*. Health. Tehran: Publishing Unit of the Cultural Department of the Central Office of the University Jihad.

Moghadam Gol Mohamadi, M., 1992. *Tuyserkan, A Survey in Natural, Historical and Social Situations*. Vol. 1. Tehran: Ghazali Publishing.

Muqtader, Q.H., 1942. *Military history of Iran*. no place: Bahar Press.

Nategh, H., 2010. *As you make your bed you must lie on it (The calamity of cholera and the blight of government)*. Tehran: Negarestan Ketab Publishing.

Pezeshki, Z., Zahraee, M., Tafazooli Shad Poor, M., Omidi, A., 2009. The occurrence of cholera and its relationship with national climatic conditions during 1985-2006. *Quarterly Journal of Infectious and Tropical Diseases related to the Association of Infectious and Tropical Diseases Specialists*, 14(45), pp. 11-15.

Poor Shafei, M., 2011. *In Others' views (Some issues from Iranian social history in the Qajar era)*. Mashhad: Dastour Publishing.

Qaragzloo, Q.H., 2009. *Hegmataneh to Hamedan*. Tehran: Eghbal.

Qazvini, A., 2017. *Letters of Aref Qazvini*. Edited by M. Bikhial. Tehran: Hermes Publishing.

Rostaei, M., 2003. *The History of Medicine and Medical Profession (From the Qajar Dynasty until the End of Reza Shah's Reign)*. Based on the Documentation. Vol.1. Tehran: The National Library and Archives of Iran (NLI).

Sadeghiniya, H., 2018. *Hamedan*. Tehran: Cultural Research Bureau.

Sadr, M., (Sadr al-Ashraf), 1985. *Memoirs of Sadr al-Ashraf*. no place: Vahid Publishing.

Tollabi, M., Rajab Nezhad, M.R., and Tajmiree, B., 2017. *Surveying the epidemics in Iran from the beginning of the Qajar dynasty to the end of World War II*. Tehran: Iranian Teb.

Tonekaboni, A., 1880. *Matlab al-Soal, Eshaliyeh Journal*. Edited by M. Hakimbashi. Tehran: Agha Mir Mohammad Bagher Factory.

*Urban Letter*, 1914. Ittehad Newspaper No. 2, 27 May. 1st Year.

Vaqaye Ittefaqiyeh Newspaper, 1994. Vol. 1 & 2. Compiled and edited by the National Library of Iran, in collaboration with the Center for Media Studies and Research.

Wiles., 1989. *Iran in a Century Ago*. Translated by Q. H. Qaragzloo. Tehran: Eghbal.



Zahir al-Dawla, 1972. *Memoirs and dicuments of Zahir al-Dawla*. Tehran: Written in Collaboration with the Franklin Book Publications.

Zia Al-Mahmoud (Mahmoud Mirza Qajar), 2020. *The first dissertation on cholera and plague in the Qajar period*. Edited by Sh. Kiani, Introduced by Dr. T. Atabaki. no place: Iran Academia.

