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# The Cholera Epidemic in the Emirate of Hail, its Causes and Effects 1288 AH /1871 AD

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### Abstract

This research addresses the cholera epidemic that swept through the Emirate of Hailin the year 1288 AH / 1871 AD. It examines the strategic location of the Emirate of Hail and its relationship with the epidemic. The research objectives encompass the environmental factors that made Hail a fertile ground for this pandemic. Additionally, it explores the role played by the Emirate of Hail in combating the pandemic. Key findings include the discovery of Hail's location pivotal role in the pandemic's arrival, the resolution of health-related consequences, particularly the death toll, thechanges in the population structure of Hail's villages due to the pandemic, the role of Haili women during the crisis, the economic challenges like famine and inflation and how they were overcome, changes in Hail's governance system, and the pandemic as a significant political outcome, the security chaos as a critical military outcome, and the evidence of unconventional precautionary measures taken by the Emirate.

Keywords: Cholera, Epidemic, Disease, Hail, Mount Shammar, Emirate

## Introduction

The strategic location of the city of Hail, situated in the middle of the Iraqi Hajj route which extends from southern Iraq to the Hejaz, led to the spread of diseases and epidemics, including the most infamous and deadly cholera outbreak. Although its spread did not exceed two months, its effects extended for many years, affecting various aspects of life. This posed a challenge to the Emirate of Hail with its limited resources at the time, under the reign of its prince Bandar bin Talal Al Rashid, in theyear 1288 AH/1781 AD. Based on this context, the research topic is divided, along with introduction and conclusion, into four main aspects:

First: The strategic location of the Emirate of Hail and its relationship to the epidemic. Second: Its effects. Third: The role of the Emirate in confronting it. Additionally, a list of sources and references is included.

The research relied on several sources, including documents, Eastern and Westerntrips, local sources, and newspapers.

## First: The Strategic Location of the Emirate of Hail and its Relationship to the Epidemic

The Emirate of Hail occupied a relatively central position in the Arabian Peninsula, situated between the north, south, and the center, stretching from the Red Sea to the Arabian Gulf (1), which formed an important stopover for travelers, trade caravans, and pilgrims. Thus, its

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location was often a major factor in the spread of epidemics and diseases, as it was positioned in the middle of the Iraqi Hajj route extending fromsouthern Iraq to the Hejaz (2). In the former route, the disease typically spread from India to Iran and then to Iraq, and to Mount Shammar (3). In the latter route, transmission occurred through contact with the pilgrims of the Iraqi Hajj caravan under the authority of Hail, who came to Mecca from every deep valley and returned back to it.

When the cholera epidemic appeared in India in the year 1288 AH/1871 AD, it spread to several neighboring regions, such as Kuwait, Bushehr, Hail, the Hejaz (5), and Al-Ahsa, as stated by Ottoman documents and newspapers (6), and the British documents from that period (7). Several researchers have agreed with this view and added that its spread also occurred in both India and Iraq (8).

As for the method of its arrival to the Emirate of Hail, it first arrived at the port of

Bushehr in the month of Dhu al-Qi'dah 1287 AH/February 1871 AD. It then spread to Iraq, from there to the Red Sea coast, Kuwait, and then Bahrain and then to pearl fishing boats. It eventually reached Hail in the month of Rabi' al-Awwal or Rabi'al-Thani 1288 AH/June 1871 AD (9) and Al-Ahsa in Rabi' al-Awwal/June (10). It reached Al-Madinah in Jumada al-Thani/September and Makkah in Sha'ban/October of the same year. British official John Gordon Lorimer commented, "It appears that cholera leaked from Kuwait to Hail" (11). It seems that his weightening was based on the fact that Kuwait was the primary commercial port for the Emirate of Hail at that time. Hail did not heavily rely for its trade in that period on the ports of Al-Uqair and Basra, until its relations with Kuwait deteriorated toward the end of the reign of Amir Muhammad bin Abdullah Al Rashid in 1315 AH/1897 AD (12). Considering interactions among peoples, especially maritime interactions, was the strongest way of transmitting the infection of this epidemic, compared to other ways, such as transmission through clothing, and to a lesser extent through the air, goods, human corpses, and animals. It is possible that the transmission of the epidemic infection from southern Iraq was facilitated due to the proximity of its location and its connection to Hail via the Iraqi Haji route (13), as evidenced by the Ottoman state imposing quarantine measures on travelers returning from the Iraqi Hajj route and others to Najaf (14).

Regardless of the method of the pandemic's spread, it found a fertile environment forits spread in Hail and several of its villages, such as Qaffar, Muwaiqiq, Al-Suwayfila, and Al-Wusayta. This was due to the presence of stagnant water, and by that we mean "abandoned wells" with abundant water, close to the surface of the earth. As for the wells used by the local residents, they were not vulnerable to this pandemic because their water was renewed with the movement of swannies continuously extracting water from these wells. As for the desert of the emirate, the infection was lighter, and the epidemic did not spread at all as a deadly disease (16).

Perhaps the organizers of the cholera conference, which was held in Istanbul in 1283AH/1866 AD (17), did not have sufficient medical information, accurate diagnosis, adequate medical workforce specialized in such pandemics, as well as scientific discoveries that had not yet emerged, all of which contributed to the conference's conclusions being inaccurate regarding the impossibility of the cholera pandemic spreading across vast deserts (18).

#### Second: Its Effects

It is ironic that this epidemic that struck the Emirate of Hail, lasting only two months,left behind effects that persisted for several years, to the point that it was often mixedwith the effects of drought and barrenness that befell the Emirate before and during the epidemic, and continued after it for about a year (19). Apparently, the pandemic's effects were significant, drawing the attention of several European travelers who documented their observations on the matter. British traveler Charles Doughty, who visited Hail in 1295 AH/1877 AD (20), and British explorer Gertrude Bell in 1333 AH/1914 AD (21), as well as Czech traveler Alois Musil in 1335 AH/1915 AD (22), allcontributed to the documentation of these effects.

Regarding the health effects, the damage was not limited to the residents of Hailcity, but rather extended to its villages such as: Qafar, Muwaqq, Al-Wasita, and

Al-Suwayfa, even the desert of the emirate, to which the infection was transmitted, but in a milder form (23). The symptoms of the infection included the appearance of ablack spot on the nose, a change in the color of nails, severe abdominal and head pain. Some of the afflicted individuals died on the same day they were infected, whileothers managed to resist the disease for a longer period (24).

What is more evident of the health effects of the epidemic that continued for a long time after its end, as stated by Doughty, is that seven years after the pandemic had hit the village of Al-Suwayfila specifically, the survivors still exhibited weakness and emaciation to the extent that it was said about them: "They are not able to carry their cloaks." Doughty described these survivors as "pale and weak like the dead, speaking feebly." It should be noted that the pandemic affected men more than women and children, resulting in a higher mortality rate among men (25). However, none of the Al-Rashid family or the elders' families, who followed a healthy diet, lostany of their members to the pandemic (26).

Charles Doughty, in 1295 AH/1877 AD, was the only one to provide an estimate of the death toll among the residents of Hail and its villages due to this pandemic.

These are approximate figures, which we compared with statistics published in the Ottoman newspaper "Al-Zawraa" in 1288 AH/1871 AD, concerning the number of houses and orchards (27). It appears that these numbers were collected before the spread of the pandemic. We also compared it with what was mentioned in other sources by travelers who visited Hail, such as: Carlo Guarmani in 1281 AH / 1864 AD, Julius Euting in 1304 AH / 1883 AD, and Musil in 1335 AH / 1915 AD, and whatwas mentioned by Lorimer in his book. Doughty determined the number of the deadto be one or two people from each house in Hail, with a total number of approximately seven hundred or eight hundred people, meaning that the number ofits houses is approximately three hundred and fifty or four hundred houses (24), while Al-Zawraa newspaper mentioned that there were about three thousand houses(29).

As for the death statistics in the villages of Hail, Doughty specified that in Al-Wusayta, there were around three hundred deaths, noting that the number of houses in the village used to be around forty before the pandemic and In the village of

Al-Suwayfila, there were about two hundred deaths (30). However, the sources did not mention the number of deaths in Qaffar. The Al-Zawraa newspaper merely statedthat there were two thousand houses in Qaffar before the pandemic (31). Musil mentioned that the village was left nearly deserted except for around forty houses that were semi-destroyed (32). This resulted in a shortage of inhabited houses, totaling approximately one thousand and nine hundred and sixty houses in Qaffar that were either abandoned or had their residents pass away. Similarly, in the case of Muwaiqiq, Gorman, who visited it before the cholera outbreak, indicated that its population ranged from one thousand to two hundred individuals (33). According to the Al-Zawraa newspaper, the village had around five hundred houses before the pandemic (34). On the other hand, Euting mentioned that the population of Muwaiqiq, before the pandemic,

ranged from five thousand to seven thousand people. After the pandemic, only about one thousand or one thousand and two hundred people remained at best (35). As for the number of houses in Muwaiqiq, Musil mentioned that there were only thirty houses left (36).

If we compare the statistics from Al-Zawraa with Musil's, the decrease in the number of inhabited houses is approximately four hundred and seventy abandoned houses. We cannot be certain that this migration was solely caused by the deaths of its residents or their migration due to the cholera pandemic. The victims of this pandemic were not limited to the city's residents but extended to the inhabitants of the desert, who became infected while visiting Hail, either to connect with their relatives or for supplies and other reasons. Their lifespan fate was even worse than that of the city's residents (37).

If we consider these approximate statistics for Qaffar and Muwaiqiq, it becomes evident that there was an increase in population between the visits of each traveler, as well as between their visits and the report from Al-Zawraa newspaper. This increase could be attributed to factors such as births or migration to these villages.

Conversely, there was a decrease in population due to deaths or other reasons for migration that seem to be natural causes rather than the observation of pandemics ordiseases during the visits of these travelers. It is important to note that the accuracy of these estimated statistics cannot be confirmed due to the absence of reliable data. Nevertheless, they serve as a significant indicator of the negative impact of the pandemic on the health of the emirate.

It was observed that those who survived this epidemic continued to suffer from its health effects even after seven years had passed. For example, the residents of the village of Al-Suwailifah exhibited paleness in their faces and a decline in their physical strength to the extent that they became unable to carry out repair work on their homes, wells, and orchards (38). This had a lasting impact on the urbanism of the villages that were affected, including Qafar, Muqqiq, Al-Suwailifah, and

Al-Wusayta villages. Many of their houses were left deserted, most suffered severe damage, and their streets became cluttered with the ruins of walls due to the removalof wood from houses, in addition to abandoned wells, filled water channels, and demolished walls (39). The process of repairing their wells required descending to a depth exceeding twenty-five cubits, as was the case in Qafar. As for the landowners who remained in these villages after being struck by the cholera epidemic, they were no longer able to work (40). The devastation's effects persisted even seven years after it had struck, as documented by Dawati in the year 1295 AH/1877 AD (41).

Moreover, the impact endured for more than forty-three to forty-four years, as noted by Gertrude Bell in the year 1333 AH/1914 AD (42) and by Mozell in the year 1335 AH/1915 AD (43). It is worth noting that this epidemic played a significant role in raising health awareness within the Emirate, especially during the reign of Amir Bandar, the nephew of Amir Muhammad bin Abdullah Al Rashid (44).

As for its social effects, the cholera epidemic had an impact on the population structure and led to a decrease in population density in both cities and villages due to the high mortality rate on one hand and internal and external population migrations on the other (45). For instance, in the year 1333 AH/1915 AD, Mozell noted that the village of Qafar had become desolate, with only about forty houses still inhabited by some elderly people, women, and children (46). Comparing this to the statistics from the Al-Zawraa newspaper in the year 1288 AH/1871 AD,

which mentioned around two thousand houses in Qafar (47), it becomes apparent that approximately 1,960 houses in Qafar were abandoned or lost their inhabitants due to migration or death.

Another social effect was the emergence of the role of Haili women. Many widowswho had lost their husbands took on the responsibility of raising their children and providing for their needs (48). Alongside this, there was a prominence of social solidarity, where those who survived the epidemic took care of the remaining affected individuals (49).

Furthermore, one of the social effects was the sponsorship of orphans. Examples of this include the sponsorship of Abdullah bin Fayez Al-Fayez from the people of

"Labda" for the orphaned child Udayr Al-Umayr Al-Muramsh from the people of Muqqiq. Udayr was only four years old when his father died due to the cholera epidemic in 1289 AH/1872 AD. He was taken in by the Al-Fayez family, who providedhim with shelter and married him to a woman from the Al-Faraih family (50). In addition, Salem Al-Sabhan sponsored Suwaylim bin Nasser bin Abdullah Al-Shalan, who was born in the year 1289 AH/1872 AD after the death of his father. Salem embraced him and his mother in his home, cared for them, ensured his education, and even trained him in horsemanship, eventually making him a skilled horseman.

This allowed Suwaylim to join the ranks of the Al Rashid army during the reign of Amir Muhammad bin Abdullah Al Rashid and his successor Abdulaziz bin Mutab. Abdulaziz bin Suleiman Al-Arifi, a merchant, was also known and labeled as "AbuAl-Ayatam" (Father of Orphans) due to the fact that whenever he encountered an orphan without a family, he would take them into his home, sponsor and nurture themuntil they found their path in life (51).

As for the economic impacts, the Emirate of Hail relied on its agricultural economy, which included numerous agricultural orchards in Hail and its associated villages.

Additionally, the Al Rashid family had agricultural holdings in some of the towns affected by the epidemic, such as Al-Wusayta (52) and Qafar (53). The cholera epidemic that spread in Hail, Qafar, Muqqiq, Al-Wusayta, and other areas resulted in population migrations (54), deaths, and the incapacity of survivors (55), which led to the neglect and abandonment of the fields, wells, and water channels (56), as well as the continuation of drought and barrenness. All these factors had a direct impact onthe quantity of agricultural crop production and the zakat (charitable almsgiving) collected by the Emirate (57).

In response to the reduced agricultural yields, prices rose significantly despite a decrease in quality (58). Wheat prices, for example, reached one riyal for every threesa'as (a traditional measure of volume), and later on, they doubled or even tripled in price (59). Similarly, the price of corn increased to three sa'as per riyal, more than doubling in cost (60). Moreover, due to the avoidance of using water from contaminated wells, residents began to fetch water from unaffected wells in Hail, but they had to pay a sum of money in exchange (61). This was further compounded by an increase in the prices of animal products, with a sa'a of clarified butter, for instance, costing four Majidis (62).

The cholera epidemic also impacted the security and the movement of caravans in the Emirate of Hail. The security situation weakened along its routes due to tribal attacks. An example of this was the assault by one of the tribes on the Iraqi Hajj caravan under the leadership of Muhammad bin Abdullah Al Rashid in the year 1288AH/1871 AD, which was described as the Battle of "Al-Arz and Al-Diqiq", translating to rice and flour. The primary objective of the

attack on the caravan was to obtain the food it carried (63). This disruption in security resulted in a shortage of food supplies for the people of the Emirate, a decline in the Emirate's revenue from trade transactions, and a decrease in tolls collected from trade and Hajj caravans (64).

Since the Emirate of Hail was a major and vital stop along the pilgrimage route for pilgrims from Iraq and Persia, the Hajj caravans used to stay in Hail for a period ranging from four days to two weeks, both on their way to and back from the pilgrimage, for rest and provisioning purposes (65). Considering that the Hajj seasonwas one of the most important trading seasons for Hail and its villages and desert areas, whether for selling their products, renting them out, or offering service (66), allof these aspects changed after the outbreak of the epidemic that struck the seasonalHajj market. In the year 1288 AH/1871 AD, the Hajj caravan in Hail only stayed for one day due to the impact of the epidemic. The pilgrims in that year complained about the high prices, the poor quality of bread that was difficult to consume, the scarcity of goods in the market compared to the number of pilgrims, and the prevalence of hungry and destitute poor people in the market (67). The impact of thisepidemic extended beyond the seasonal Hajj market in Hail; it also affected the market in Qafar, located along the Iraqi Hajj route. This market used to prepare each year to sell its products to trade and Hajj caravans, usually providing a night's rest forpilgrims and travelers after they left Hail before continuing on to their destination (68).

However, in that year, the Iraqi Hajj caravan did not pass through Qafar due to thewidespread outbreak of the epidemic, which was more severe there compared to other villages. Instead, the Hajj caravan continued its journey from Hail to Mastaqda, where they rested for one night (69).

In the end, all of the aforementioned factors had an impact on the revenues of thetreasury of the Emirate of Hail. This impact was caused by various channels, including the zakat imposed on agricultural crops in Hail and its villages, the road taximposed on pilgrimage and trade caravans, and the commercial activity in the markets of Hail and Qafar. The deteriorating economic conditions in general led to dissatisfaction among the local population (70), which they expressed by using the term "Jard Bandar," as previously mentioned. Emir of Hajj, Muhammad bin Abdullah Al Rashid, also expressed the economic hardships faced by the Emirate when he brought a significant amount of supplies to the people of Hail with the assistance of the Dhafir tribe, referring to it as the "Ajjaz Al Jabal," indicating the economic weakness and difficulties experienced by the Emirate during that period (71). These circumstances were further exacerbated by the fact that during the reign of the previous ruler, Emir Mutaib bin Abdullah Al Rashid, who governed Hail for about two years (1283 AH - 1285 AH / 1867 - 1869 AD), there was a lack of rainfall in Najd. Thelocals referred to the period of his rule as "Duhayran," likening the two years of his rule to an extended period of time, as if the year had passed as if it were an era due to the hardships they endured (72).

Cholera also inflicted damage on the political and military aspects, and to understand its impact, it's necessary to mention that during the rule of Prince Bandarbin Talal Al Rashid in the Emirate of Hail for a period of three years and eight months(1285-1289 AH / 1869-1873 AD), the people of Hail were initially optimistic about his rule due to the affection they held for his father and the improvements they experienced during his reign (73). However, the effects of the cholera outbreak in 1288 AH / 1871 AD (74), on one hand, and the continued drought and famine duringthe period of 1287-1289 AH / 1870-1872 AD, on the other hand, weakened his popularity among the people of Hail. They were pessimistic about his reign, and sawthat no ruler weaker than him had ruled over the Emirate (76). They coined the term"Jard Bandar"

(77) to describe the hardships they endured during those years, and this expression became a metaphor for challenging times.

One of the effects of this epidemic was a decline in the strength of the Emirate of Hailand its capital, Hail itself, as well as a decrease in the power and status of several of its villages that were affected by the epidemic, such as Qafar (78), Muqqiq,

Al-Suwailifah, and Al-Wusayta. There was also a reduction in the number of military forces of the Emirate due to the increased deaths on one hand and internal and external migrations on the other hand. When we examine the military raids carried out by the Emirate during this period, we notice their scarcity. The sources only reportone raid conducted by Prince Bandar bin Talal Al Rashid against the Sa'aran tribe from the Mutair tribe in Al-Shawki in 1286 AH / 1869 AD, two years before the outbreak of the epidemic (79).

Due to the setbacks in agricultural production, rising prices, the spread of povertyand hunger in Hail and its villages, in addition to the fact that this epidemic, as mentioned earlier, was not confined to Hail but spread to neighboring regions, security on the Iraq Hajj route became scarce. Tribes began to attack caravans toseize their food supplies (80).

One of its notable political consequences was the exploitation by Prince Muhammad bin Abdullah Al Rashid of the deteriorating health and economic conditions in the Emirate of Hail. He sought the assistance of the Dhufair tribe to bring supplies from the markets of Iraq to Hail. It's worth noting that the dispute between this tribe and Prince Bandar bin Talal Al Rashid, the ruler of the Emirate of Hail, was still ongoing. It seems that this alliance was intended to meet the food needs of the people on one hand while creating a conflict between Prince Bandar and Prince Muhammad as a form of revenge for his brother Mutab and an aspiration for power on the other hand (81). As a result of this alliance, Bandar was killed by his uncle Muhammad bin Abdullah Al Rashid, and Muhammad succeeded him as the ruler (82).

## Third: the Role of the Emirate in Combating the Epidemic

The Emirate of Hail adopted several preventive measures and treatment methods to confront this epidemic. These measures applied to the residents, traders, and pilgrims. Among these preventive measures was the decree issued by Prince Bandarbin Talal Al Rashid to isolate those infected with the disease from the population and provide them with medical treatment in a quarantine facility away from the rest of the residents. Recovered individuals were then tasked with caring for the infected, as it was confirmed that they were not susceptible to reinfection (83). Additionally, he ordered that pilgrims should not stay in Hail for an extended period (84). His strict implementation of this measure was due to the fact that the majority of the pilgrims came from regions where the epidemic had spread, such as India, Iran, and Iraq. This was done to prevent the disease from spreading to the recovered residents of Hail (85). When we examine the journey of the Iraqi Hajj caravan in the year 1288 AH/ 1871 AD, we notice that the pilgrims did not stay in Hail for more than one day, whereas they used to stay annually for four to fourteen days. Prince Bandar also ensured that they stayed outside the city walls in designated accommodations to prevent any contact between the Emirate's residents and the pilgrims. He even prohibited the Hajj caravan from passing through the village of Qafar, which wasusually the first stop for rest and resupply after leaving Hail, as it was one of the villages in the Emirate of Hail most affected by this epidemic (86).

As part of the preventive measures taken by both the local residents and travelers, they avoided

drinking water from contaminated wells and instead fetched water from safe wells like the Samaah well, at an expense. It's worth noting that their practice of obtaining water from these wells continued for a period of time, as documented by Dawati in the year 1295 AH / 1877 AD (87).

As for the treatment methods, the commonly practiced medicine among the residents of the Emirate of Hail was traditional medicine. They only obtained treatment from modern medicine through therapeutic journeys to Iraq (88), Kuwait (89), and India (90). Typically, these trips were undertaken by the ailing individuals among the elite and affluent members of society, such as princes, their entourage, and merchants.

Modern medical treatment was also acquired through Persian doctors who accompanied the caravans of the Hajj to the Emirate of Hail (91). Additionally,

European travelers who disguised themselves as doctors visited the Emirate (92). Lastly, Iraqi doctors were occasionally summoned by the Al Rashid princes to conduct medical examinations on their patients and work temporarily within the

Emirate (93).

The treatment utilized by the residents of the Emirate of Hail for those afflicted with the cholera outbreak involved the use of quinine tablets. These tablets were brought by one of their prominent figures from Iraq and were distributed to the patients as a remedy, with a cost of five riyals for ten or twelve tablets. They would typically consume them after taking a mild dose of English salt (magnesium), which was readily available due to trade relations between the Emirate and India, among other places. The quinine tablets helped alleviate the pain caused by the cholera, and some individuals recovered through this treatment. Additionally, the residents used to isolate the afflicted individuals to prevent the spread of infection (94).

To confront the economic impact left by this pandemic, along with the coinciding famine and drought, Prince Bandar bin Talal Al-Rashid was keen on monitoring the progress of agricultural work in the orchards (95). He hoped to provide the population's agricultural needs and compensate for the losses incurred by the

Emirate's treasury from the Zakat imposed on its owners. He also made sure to supply the residents with food and other necessities by providing large quantities of them from the markets in southern Iraq (96). Significantly, given the prevailing circumstances and the resulting security breakdown along the caravan routes, he heavily relied on his uncle, Mohammed bin Abdullah Al-Rashid, who possessed extensive experience in leading trade caravans and the ability to maintain their security. He also enjoyed strong popularity among traders and the local population, both in urban and rural areas (97). In the year 1288 Hijri / 1871 AD, the food supply for the people of Hail from Iraq amounted to five hundred camel loads (98), some sources claim two thousand (99). As for what the Ottoman state provided, the governor of the Medina city, Khalid Pasha (100), sent a financial amount of six thousand seven hundred and eighty-eight piastres (101) to Prince Bandar bin Talal Al-Rashid in the year 1288 Hijri / 1871 AD. Additionally, the Ottoman state imposed a quarantine on those returning from the Iraqi pilgrimage route to Najaf (102).

#### Conclusion

The Hail Emirate's location played a major role in the spread of the cholera pandemic, as it was situated in the middle of the Iraqi pilgrimage route extending from southern Iraq to the Hijaz. The arrival of the cholera epidemic in the Emirate of Hail proved the incorrectness of

the conclusions of the cholera conference held in Istanbul in 1283 AH/1866 AD, regarding the impossibility of its transmission across the vast deserts. The pandemic had negative effects on all aspects of life in the HailEmirate region.

This study highlighted the pandemic's adverse impact on social, economic, military, and political conditions to the extent that these conditions became paralyzed. This is in contrast to previous studies that did not consider the repercussions of the cholera pandemic on the mentioned conditions.

However, one of its positive effects was the improvement of healthcare in the region. Previously, they relied on traditional remedies and sought modern medical treatmentduring their medical trips, often involving Persian and traveling doctors. Prince Mohammed bin Abdullah Al-Rashid summoned Iraqi doctors to examine their patients and work temporarily in the Emirate, contributing to the development of healthcare in the region.

#### Disclosure Statement

The authors have no other relevant financial or non-financial relationships to disclose.

## **Competing Interests**

The authors declare that there are no relevant financial or non-financial competing interests to report.

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- believed to dissolve body salts, treat kidney diseases, purify blood, and aid in digestion. The idea to dig a well at this location was suggested by a man named
- Dughman Al-Hamzani after a neighboring well, "Bir Sameeh," disappointed in termsof water abundance and quality. The large enclosed area located north of the
- Samaah Orchard was used as a resting place for caravans of pilgrims from Iraq and Persia during their journey to or from the Hajj. They would rest in Hail while travelingto or returning from the Hijaz. The visit to the link was made on Monday, 27 Rabi
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- 97. Al-Rashid, Dhari bin Fahd, "A Historical Overview of Najd," p. 187.
- 98. Al-Suwayyan, Saad Al-Abdullah, "The Late Arabs," p. 1110.
- 99. Mosul, Alois, "The History of the House of Rashid," pp. 566, 568.
- 100. Al-Rashid, Dhari bin Fahd, "A Historical Overview of Najd," pp. 186-188.
- 101. Al-Suwayyan, Saad Al-Abdullah, "The Late Arabs," p. 1110.
- 102. Khalid Pasha: General Khalid Pasha served as the Shaykh of the Noble
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