



A retrospective clinical analysis of Amir Kabir's migraine: A microhistorical approach to reinterpreting Qajar political history

Received: 02 June 2025
Accepted: 09 Aug. 2025

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Keywords

Microhistory; History of Medicine; Migraine; Headache; Medical History

Abstract

Background: In recent years, retrospective research on the illnesses of famous people and politicians of the past has gained great importance in medical research, especially in the history of medicine. The physical and mental illnesses of people such as Napoleon Bonaparte or Mozaffar al-Din Shah Qajar are among the influential studies in this field. This study performs a retrospective analysis of Amir Kabir's correspondence during his tenure as Chief Minister, specifically investigating clinical indicators of migraine within his documented symptomatic reports.

Methods: By reviewing the content and analyzing Amir Kabir's letters, all of his reports related to the disease were extracted and the relevant clinical descriptions and symptoms in 71 letters were cataloged. Extracted

symptoms were categorized and subsequently assessed using International Classification of Headache Disorders, 3rd Edition (ICHD-3) criteria to determine their relationship with migraine.

Results: Headache, photophobia, nausea, ocular pain, and cognitive confusion were among the symptoms that were mentioned episodically and frequently in Amir Kabir's letters throughout his three-year period of leadership.

Conclusion: By analyzing Amir Kabir's clinical descriptions within his personal correspondence using ICHD-3, and based on available historical accounts, this study suggests a high probability that he suffered from a chronic primary headache disorder, potentially migraine.

How to cite this article: Ghezloo S, Soheilnader S, Namazi H. A retrospective clinical analysis of Amir Kabir's migraine: A microhistorical approach to reinterpreting Qajar political history. Curr J Neurol 2025; 24(4): 296-301.

Such a condition may have played a contributory role in shaping his temperament and influencing his reactions under challenging circumstances. Remarkably, this hypothesis has yet to be explored through systematic medical-historical investigation.

Introduction

The study of health conditions and diseases of historical figures, and their impacts on decision-making and historical trajectories, has gained considerable attention from scholars in recent decades. This area of investigation has been given little attention in works conducted by Iranian scholars, but many historians around the world have re-examined letters, memoirs, archival documents, and other sources to reconstruct new medical interpretations in the lives of notable individuals.¹ Among such studies, historical personalities such as King George III (1728–1820), who is widely believed to have suffered from porphyria, are among the most frequently analyzed examples.^{2,3} In much the same way, the progressive malignant gastric neoplasia of Napoleon Bonaparte (1769–1821) that led to his death has become another well-documented instance of how disease can illuminate political and personal histories.⁴ This is a line of inquiry in the microhistorical tradition, whereby a detailed examination of the illness of the individual may provide valuable insights into the general social and political configurations that prevail at any one time.⁵ The researchers employ this method to demonstrate how the medical experiences of influential figures can serve as a lens for understanding historical transformation.

Similarly, in the Iranian context, good health or illness of political leaders shaped governance, public perception, and power dynamics, the physical and psychological ailments of Mozaffar al-Din Shah Qajar being among the most noticeable examples of Iranian historiography.^{6,7}

Migraine is a primary neurobiological disorder characterized by central nervous system (CNS) hyperexcitability and manifesting as recurrent attacks of moderate-to-severe headache, often accompanied by nausea, photophobia, and phonophobia. It is one of the leading causes of disability worldwide, resulting in substantial impairment of quality of life (QOL) and social, occupational, and familial functioning.^{8,9} Migraines or other types of headaches have existed for humans since ancient times. Nonetheless, with the efforts of many physicians like Thomas Willis

(1621–1675) in the 17th century when he published his thesis titled “Megrim”, and the works of others in the 18th century, the word migraine gained its place in medical terminology with its current usage.¹⁰ Although earlier Iranian medical texts described conditions resembling migraine, known as *shaqiqeh* in Persian, they did not differentiate it as a distinct disorder in the systematic way European physicians did by the 18th century.¹¹

Mirza Taqi Khan Farahani, known as Amir Kabir (1807–1852), is a reformist leader in the new Iranian era. At the beginning of Naser al-Din Shah's reign (r. 1848–1896), he was appointed Chief Minister and, based on his bureaucratic background and practical sense, initiated a series of radical reforms in the political and administrative apparatuses of the country.¹² Unlike most statesmen of his time, Amir Kabir was born to humble roots and gained his legitimacy not by aristocratic background or noble descent, but through established administrative competence and pragmatic success.¹³

Among the surviving Qajar-era correspondence, Amir Kabir's letters written during his tenure as Chief Minister, specifically those addressed to Naser al-Din Shah, are of particular historical significance. While their tone is political and governmental, these letters contain numerous mentions of Amir Kabir's health in the form of explicit admissions of sickness, descriptions of physical and psychic ailments, and even descriptions of therapeutic treatments performed. Through monitoring and analysis of these clinical data and references in Amir Kabir's letters, irrefutable evidence is provided which suggests that he might have been afflicted with migraine. Examining history through relatively marginal letters and documents that have been of less importance in historiography is one of the effective methods of modern historiography.¹⁴

Amir Kabir, the sick man in Qajar-era politics

Following the accession of Naser al-Din Shah and the beginning of Amir Kabir's premiership in 1848, he initiated a series of reforms, including establishing a modern army, reducing corrupt court influence, founding the Dar al-Fonun polytechnic school, reforming the tax system, limiting the authority of foreign consulates, and improving public health infrastructure.¹³

However, Amir Kabir's growing power soon provoked strong opposition from influential factions within the royal court, most notably Mahd-e Olia (the mother of Naser al-Din Shah), as

well as certain clerics and Qajar elites.¹² These mounting oppositions eventually led Naser al-Din Shah, under pressure from court factions, to dismiss Amir Kabir from his position as Chief Minister and exile him to Kashan City, Iran.¹³ His assassination in the Fin Bathhouse in 1852 not only symbolized the collapse of reform efforts within the Qajar autocracy but also marked a turning point in the broader history of failed attempts at indigenous modernization in Iran.¹⁵

According to Amanat in *Pivot of the Universe*, the relationship between Naser al-Din Shah and Amir Kabir was both paternal and political: initially shaped by mentorship but later strained by power dynamics and the Shah's growing desire for independence until fatal tension arose.¹⁶

Materials and Methods

In this study, the researchers analyzed 571 letters attributed to Amir Kabir. Of these, 210 belonged to the Ghassem Ghani Collection at Yale University, United States, and 361 were published in *Nameh-haye Amir Kabir, be Enzemam-e Resaleh-ye Navader al-Amir* by Ali Al-e Davood (Figure 1).

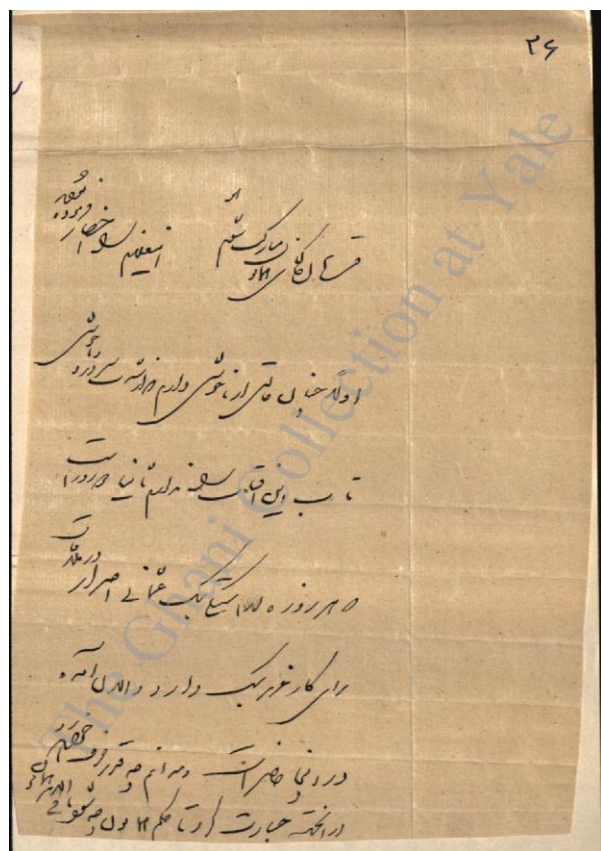


Figure 1. Letter number GIII A 26 in the Ghassem Ghani collection at Yale University, United States, by Amir Kabir, reporting headache and photophobia

The Yale archives provided digitized access to the Ghani Collection, including both original scans and transcriptions. Each text was reviewed in its entirety, and the letters containing references to illness or health-related issues were matched to their scanned originals for verification.

Careful revision was also carried out for the Al-e Davood volume, which contains 361 letters: 44 addressed to various individuals and 317 directed to Naser al-Din Shah Qajar.

In the initial screening stage, all 571 letters were fully read. A total of 71 letters referred to health conditions either explicitly or implicitly, and thus were selected for detailed scrutiny.

Given that this research was library-based, historical analysis, rather than a manuscript study, the critical editions of Ghani and Al-e Davood collections were used as the main verification sources for textual accuracy. In data cleaning, 5 duplicate letters were found and removed. S.G. carried out the abstraction of disease-related data, which was then reviewed by H.N. for completeness and accuracy. H.N. conducted the initial matching for historical symptoms to modern diagnostic standards, and S.S. (the neurologist) reviewed and validated the diagnostic alignment with International Classification of Headache Disorders, 3rd Edition (ICHD-3) criteria for migraine.

Each available letter was thoroughly examined to categorize relevant statements into four distinct themes: (1) general disease descriptions without mention of symptoms, (2) treatment, (3) medical ethics, and (4) clinical symptoms. Of these, the fourth category was explored in greater detail. Clinical symptoms discovered were cataloged and quantified by frequency of mention. Among these, those most consistent with the symptoms of migraine were selected for further consideration.

Results

Migraine in Amir Kabir's letters: These letters contain repeated descriptions of the symptoms that Amir Kabir apparently suffered from: severe headaches associated with photophobia and nausea, which are surprisingly consistent with current diagnostic criteria for migraine. For example, Amir Kabir mentions in a letter that:

May God Almighty protect the king and keep the shadow of the king's high rank over the separation of these servants. Because my headache was so severe, I was deprived of the opportunity to kiss the seal of the king's appearance. God willing, tomorrow, as they have determined, the happiness

of honor will be achieved in Abbas Abad.¹⁷

Or in another letter, he said:

The condition of this servant is good, owing to the King's benevolence (Amir Kabir used the word Qiblah-ye Alam); however, the pain in my head and chest has troubled me to such an extent that I am unable to speak.¹⁸

In another letter, Amir Kabir refers to a specific condition, which is sensitivity to light:

May God sacrifice my life for your footsteps (This is a conventional honorific greeting formula (ta'arof) commonly used in Qajar-era court correspondence to address the monarch, and is not intended literally). This servant has been summoned. Firstly, I am in such a state of illness that I cannot endure the light due to the severity of my headache and illness. Secondly, Erasteki Bey of Ottomans has been pressing for two days to discuss Aziz Bey's business; he has now arrived, and given his loquacity, he has dared to challenge the King's verdict.¹⁸

Nausea is another recurring symptom in Amir Kabir's letters, generally mentioned along with abdominal discomfort. Although nausea alone is not a definitive sign of migraine, examining it alongside other symptoms can be an important indicator. Amir Kabir says in Letter GIII A 108 to the King:

In the evening, your servant had nausea and a stomachache. One hour before sunset, I was riding my horse when I sought treatment, which, by your grace, provided relief.¹⁷

The clinical symptoms reported in Amir Kabir's letters are mentioned in table 1.

Table 1. Clinical symptoms of Amir Kabir, based on his letters

Symptom	Letter number	Number of repetitions
Headache	11	20-155-216-GIIIA 6-GIIIA 26-GIIIA 144-GIIIA 203-12- 19-164-179
Catarrh (Zokam)	3	160-GIIIA 64-GIIIA 136
Stomachache	3	201-65-GIIIA 108
Back pain	3	282-291-293
Depression	2	208-GIIIA 38
Sore throat	1	233
Ocular pain	1	235
Cold	1	27
(Sarmakhordegi)		
Nausea	1	155-GIIIA 108-19
Photophobia	1	GIIIA 26
cognitive confusion	1	GIIIA 6

Discussion

To better examine the clinical symptoms mentioned in Amir Kabir's letters, we must first examine the modern-day migraine characteristics that have been measured and accepted. According to the ICHD-3 diagnostic criteria, in order to diagnose migraine, the following symptoms need to be examined: A) a minimum of 5 attacks meeting criteria B through D, B) a duration of 4-72 hours per attack, (untreated or treated but unsuccessfully), C) the presence of at least two of the following characteristics: unilateral pain, pulsating nature, moderate to severe intensity, or aggravation by routine physical activity (e.g., walking, climbing stairs), D) the presence of at least one associated symptom, specifically nausea and/or vomiting, photophobia, or phonophobia, and E) symptoms not better explained by another diagnosis.

With these interpretations, many of the clinical symptoms mentioned by Amir Kabir, such as headaches (which are not mentioned to be unilateral), nausea, sensitivity to light, and exacerbation by physical activity, are very consistent with the pattern of migraine pain. However, due to the lack of some historical information, such as the time of writing the letters (which makes it impossible to measure the time interval between headaches) and the lack of mentioning some details that Amir Kabir may not have noticed (such as the unilaterality of the headaches), accurate diagnosis is somewhat challenging. Although a definitive diagnosis cannot be made, the symptom complex is more similar to a migraine-like disorder than to other primary headaches.

The correspondence indicates an intermittent pattern of headache recurrence, with periods of symptomatic remission reported between the episodes of illness described in the letters. Such episodic presentations, characterized by complete recovery between attacks, are a pattern seen in many old medical accounts of migraine-type headaches.

Sensitivity to light and sun intolerance during headache (a classic symptom of migraine) is explicitly mentioned in one letter (GIII A 26). Another letter also describes eye pain, a symptom that is very common in migraine headaches.

Mentioning examples of abdominal pain in letters may also be important for the correct diagnosis of migraine. Recent studies have confirmed a two-way link between migraine and gastrointestinal (GI) diseases through the gut-brain axis (GBA).¹⁹ This link could explain why Amir Kabir reported both

headaches and abdominal discomfort during periods of emotional stress or fatigue.

However, feelings of depression, which have been described in several letters, could be another symptom associated with migraines. Depression is one of the most common comorbidities in people with migraines and has been shown to increase the frequency and severity of attacks.

The letters also mention some therapeutic measures: the use of local herbal poultices, washing with vinegar, and avoiding sunlight; methods that are fully compatible with the limited medical knowledge of the 19th century. The ineffectiveness of these treatments for Amir Kabir reflects the lack of an effective headache treatment strategy in Qajar Iran and the continued suffering of such patients. Beyond the clinical description, these debilitating and recurrent headaches likely had a significant negative impact on Amir Kabir's cognitive, decision-making, and problem-solving abilities, and they marked his prime ministerial career with a series of events. Contemporary neuropsychological evidence suggests that migraine during attacks (and in some patients even between attacks) impairs attention, executive function, and decision-making, and reduces tolerance to stressful situations.^{20,21} In the tense atmosphere of the Qajar court, such periodic disturbances could have affected Amir Kabir's capacity to perform complex administrative tasks and manage crises, and when combined with political pressures, had devastating consequences.

From a historiographical perspective, the temporal distribution of these symptoms during his relatively short term as Chief Minister (1848–1851) is remarkable. Although it was noted earlier that the exact date of the letters is not known, the recurrence of similar complaints over this short period suggests a chronic and debilitating illness. At that time, migraine was known in European medicine under the names hemicrania or megrim, but in Iran, it remained largely unclassified, and its closest equivalent in traditional Persian medical texts was “shaqiqeh”.

This is a retrospective study and has several

inherent limitations. Our medical interpretations are based solely on the surviving letters of Amir Kabir, and there is no corroborating clinical evidence or independent historical accounts, especially medical reports, that can confirm or refute our diagnoses. The risk of overinterpretation and confirmation bias is high; the analysis may be biased towards symptoms consistent with migraine, and less attention may be paid to unusual features (some of which, such as colds and back pain, were mentioned). The scattered nature of the data and the lack of details about the duration, frequency, and unilateral nature of attacks are other important limitations that make a definitive diagnosis uncertain. Therefore, alternative options such as tension headaches, recurrent pains related to stress, and even physical manifestations of psychological distress should be considered. These limitations are inherent in retrospective historical research. However, they also highlight the interpretative value of such documents, especially when examined with due caution.

Conclusion

Given the available evidence, the most likely hypothesis is the existence of a recurrent migraine-like headache disorder or migraine itself. Although this cannot be considered definitive, the recurrence of symptoms consistent with migraine in several letters makes this hypothesis the most likely option. Further research into the medical analysis and historiography of Qajar-era documents could provide a deeper understanding of the interaction between health and governance in 19th-century Iran.

Conflict of Interests

The authors declare no conflict of interest in this study.

Acknowledgments

The authors would like to thank Yale University Library for providing digitized access to the Ghassem Ghani Collection used in this study.

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