Lord Byron's first voyage in Greece (1810) and the neglected case of malaria

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Summary

The aim of our report is to present the case of the illness which probably affected Lord Byron's health for the rest of his life. We present three letters of the famous British poet and fighter of the Greek Revolution in 1821, which were sent between 25 September and 3 October 1810. These letters are associated with Byron's illness during his excursion in the ancient monuments of Peloponnese. Lord Byron describes his clinical features with an irregular fever close to malaria but the identification of *Plasmodium spp* is difficult. According to the environmental conditions and the endemicity of the area, the hypothesis of a mixed species malaria cannot be excluded.

Lord Byron in Greece

The famous British poet Lord George Gordon Byron, commonly known as Lord Byron, was born on 22 January 1788 in London. Even in his active life (riding, fencing, long-distance swimming), the young Lord had health problems until his final fatal illness on 19 April 1824 in Missolonghi, Greece, during the Greek Independent War against the Ottoman Empire.[1–4]

Byron arrived in Greece (November 1809), during his first trip in the Mediterranean Sea (1809–1811), and sailed for Asia Minor (5 March 1810). On 17 July 1810, he returned to Athens from Istanbul by boat and remained in Greece until 22 April 1811. While residing in Greece, he sent 20 letters in which he expressed his thoughts about everyday life in Greece and the political situation in the Ottoman Empire. Three letters are of huge significance since they involve narrations of his illness during his stay in the Greek mainland. The recipients of these letters were John Cam Hobhouse (25 September and 2 October 1810) and Francis Hodgson (3 October 1810).[5]

Lord Byron's illness

In August 1810, the eminent British poet left Athens in order to explore the Peloponnese. However, a month later he developed a high fever while he was in Patra and he was 'treated' by Dr Romanelli. On 25 September 1810, following two enemas, he was once again able to stand up on his feet and described to Hobhouse his dramatic situation:

> *Patras, September 25, 1810*
> *My Dear Hobhouse,*
> *I'm at present in a very ridiculous situation, under the hands of Dr Romanelli and a fever which hath confined me to my bed for these three days past, but by the blessing of God, and two glysters, I'm now able to sit up, but much debilitated.*

Without losing his sense of humor, Lord Byron is unfolding his poetic talent in a travesty of Pope's verses for the Duke of Buckingham and at the same time provides us with valuable information about the symptoms of his disease:

On a cold room's floor, within a bed
Of iron, with three coverlids like lead
A coat and breeches, dangling o'er a nook
Where sits a doctor, and prescribes a puke
Poor B-r-n sweats - alas! how changed from him
So plump in feature, and so round in limb

A second letter to Hobhouse, in October 2, provides us with the information that despite the fact Byron initially thought he had fully recovered, he remained pyrexial for five more days:

Dear Yani,
By this second date you will perceive that I have been again ill, indeed I have had this fever very violently, and five days bed-riding with Emetics glisters, Bark, all the host of Physic, showed how vain were my former hopes of complete recovery. But being well toasted and watered…

The next day, Byron described his health adventure to Francis Hodgson:

Patras, Morea, October 3, 1810
As I have just escaped from a physician and a fever, which confined me five days to bed, you won't expect much allegrezza in the ensuing letter. In this place there is an indigenous distemper, which when the wind blows from the Gulf of Corinth (as it does five months out of six), attacks great and small, and makes woful work with visiters. Here be also two physicians, one of whom trusts to his genius (never having studied), the other to a campaign of eighteen months against the sick of Otranto, which he made in his youth with great effect. When I was seized with my disorder, I protested against both these assassins; but what can a helpless, feverish, toast-and-watered poor wretch do?

Unfortunately, Byron did not have the option to choose his physician and therefore people accompanying him decided to bring him to Romanelli in order to be administered emetic preparations:

In spite of my teeth and tongue, the English consul, my Tartar, Albanians, dragoman, forced a physician upon me, and in three days vomited and glistered me to the last gasp.

Nonetheless, he retained his good sense of humor and as he says to Hodgson he had already prepared his funeral oration:

Youth, Nature, and relenting Jove
To keep my lamp in strongly strove
But Romanelli was so stout
He beat all three and blew it out

Eventually, the poet was lucky enough to recover his sickness and survive Romanelli's treatments:

But Nature and Jove, being piqued at my doubts, did, in fact, at last, beat Romanelli, and here I am, well but weakly, at your service…

Lord Byron continued his journey without acquiring further diseases and left Greece on 22 April 1811. He returned in Greece in 1823 but not as a traveller. He returned as a warrior during the Greek Revolution against the Ottoman Empire and was adored by the Greeks more than any other foreign warrior.

Finally, the fact that Byron is referring to his physicians as the two 'doctors-assassins' is interesting. With such comments he is trying to focus on the very important issue of malpractice in the Greek territory, which was under Ottoman occupation, because there were physicians without any medical qualifications. The quality of health services was extremely poor, since medicine in the conquered Greek territory was practised by empirical doctors and preventive measures for avoiding the spread of an epidemic, such as quarantine, were unheard of. In contrast, the level of medicine and medical institutions in the cosmopolitan Istanbul and other major Ottoman towns was at a high level.[6] In the late 18th century, the Ottoman elite class rejected the epidemic as an act of God by actively proposing and later enforcing the quarantine measures.[7]

But Greek territory was devastated from revolutions and reprisals, the economy of the local trade centers declined and a lot of times, the local Ottoman rulers tried to separate by force their areas from the central administration of Istanbul. Under those circumstances and without an Ottoman political stability, the establishment of serious and permanent quarantine methods in Greece was completely inapplicable.

On the contrary, the Greek population near the Ionian Islands (only a few miles from the Greek mainland) had the luxury of scientific treatment by Greek doctors who had graduated from Medical Schools of Universities in Italy.[8] The Ionian Islands, under the rule of the Imperial French (1807–1814) and later British Protection (Treaty of Paris 1815), were a major trade and cultural centre, with health services of high standards. More specifically, during the period of British Protection in the Ionian Islands (1815–1864) there were many improvements in the hospital services by the British authorities including the foundation of several lazarettos, the establishment of a brand new system of documentation and prevention against infectious diseases.[9–11]

The case of Byron's malaria

Malaria caused by obligated intracellular protozoa of the genus *Plasmodium*. Four species of *Plasmodium* are capable of infecting humans: *P. malariae*, *P. vivax*, *P. ovale* and *P. falciparum*. The clinical events are related to the behavior of the parasites in the bloodstream. The onset of the chill reflects the escape of parasites and metabolic products from ruptured red cells. In primary attacks, several days are required before the periodicity predicted by the lengths of various parasite life cycles is established.[12]

Unfortunately, we have a lack of accurate epidemiological data of that era and region, and we will try a proportional study to the physician's findings of the Ionian Islands, some miles western of the Greek mainland. The place where Lord Byron became severely ill is located near the Ionian Islands which were under French occupation at the time. In 1815, when these islands were put under British Protection, several travelers and physicians noticed that an infection causing high fever was a regular phenomenon in the western part of Greece during summer and autumn.[13,14] According to military surgeon Goodison, the fevers of the island Santa Maura (Lefkada in Greek), a few miles from the Greek mainland, is also named by the local doctors as *amphimerina paludoza*.[15] Goodison states that according his postmortem findings of liver's alterations in almost 100 autopsies and the nature of the fever, he excluded the typhoid fever. Depending on duration and the incidence of remission and recurrence of such fever, the physicians of Ionian Islands called this disease tertian or quartan fever, a description and terminology that correlates today to malaria. Actually, malaria had been an endemic in Greece since 400 BC and was a serious problem for public health in all parts of Greece until the middle of the 20th century. The report of Ronald Ross, the 'father' of the anti-malarian struggle in Greece, shows the large scale of the disease.[16,17]

According to the aforementioned letters, it looks like Byron presented with high fever for three days (22–24 September 1810) and became apyrexial for the next two days (25–26 September 1810). However, he developed high fevers again between 27 September and 2 October. Malaria is characteristically paroxysmal, and often periodic. The clinical episodes begin with chills, extend through a bout of fever, and end with sweating, subsiding fever, a sense of relief, and often sleep. The lines from Pope's poem 'with three coverlids like lead' and 'Poor B-r-n sweats' describe elegantly the characteristic symptoms of patients suffering from malaria and high fever, since they are bound to bed and cover themselves with many blankets. In addition, vomiting and diarrhoea are clinical features attributed to malaria and were probably exacerbated by Romanelli's therapeutic management.

After 5 to 7 days, *P. vivax*, *P. malariae* and *P. ovale* infections can become synchronous and cause periodic febrile paroxysms. According to Goodison the tertian fever was a common phenomenon in the region and is known that *P. vivax* infection has an initial quotidian tendency to tertian fever.[12] In addition, according to the surgeon John Davy, Inspector of the Military Hospitals in the Mediterranean during 1824–1835, the tertian fever always was the leading type of fever and main cause of death among the troops in Greece than the intermittent fever of the regiments in Malta.[18] His oscillating fever may lead us to assume that Lord Byron suffered from malaria caused probably by *P. vivax*. The incubation period is 12–17 days, patterns in different strains vary, and the severity of the primary attack is mild to severe. The usual periodicity of febrile attacks is 48 h and the duration of the febrile paroxysm is 8–12 h.[12] But this fact in Byron's case is under discussion.

P. falciparum is another candidate for Byron's malaria. Paroxysms are also irregular and the fever spikes are often dramatically high. The fever is irregular at first, but usually occurs daily (in falciparum malaria it may never become regular).[19] *P. falciparum* paroxysms differ in many ways: the chill stage is less pronounced, the fever stage is more prolonged and intensified (fever tends to be a continuous or only a briefly remitted type).[20]

P. malariae (quartan) malaria is the mildest most chronic of all human malaria infections. The patient may have several febrile paroxysms but in quartan malaria, as the name implies, they are classically separated by intervals of 72 hours. Paroxysms with rigors are more common in *P. vivax* and *P. ovale* than in *P. falciparum* or *P. malariae*.[21]

According to the high endemicity of the region, positive correlations between exposure to and hence prevalence of different species of *Plasmodium* might be expected, because they are all transmitted by the same mosquitoes.[22,23] Many field studies have found a correlation between the presence of malaria parasites of different species in the same human host.[20] All human malarias are transmitted by the same vector species, and in the absence of immunological interactions, this would lead to them occurring together more often than expected by chance. Of course, the variations among the immunological cross-reactions of the examined pairs of *Plasmodium spp* conclude that there are geographical differences in the way that human malaria species interact.[24] Actually, the possibility of a mixed *Plasmodium spp* infection can not exclude in the case of Lord Byron's disease.

Conclusion

The voyage of Lord Byron in the East was another episode in his adventurous life. During this voyage he faced a serious illness but he survived even treatment from physicians without qualifications, a very common phenomenon of that era for Greek territory under the Ottomans. The case of Lord Byron's illness during his first Greek visit remains a medical mystery. Unfortunately, the lack of sound epidemiologic data of that era in Greece does not allow a safe diagnosis. The case of malaria is a possible diagnosis mainly by the knowledge of the disease's existence in the area for centuries. In addition, the only accurate medical descriptions by the British physicians of the Ionian Islands about the fevers of the area are another tool in the speculation about malaria. Lord Byron described in his letters an asynchronous period of a fever in the time-frame of 12 days. Obviously, the hypothetic diagnosis of malaria has few candidates of *Plasmodium spp*. The paroxysms, in which fever spikes, chills and rigors occur at regular intervals, are unusual and suggest infection with *P. vivax* or *P. ovale*. But a mixed infection of *Plasmodium spp*, a not unusual phenomenon in high endemic areas, seems another possibility.

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