Review article

MEDICAL CARE IN FREE-BESEIGED MISSOLONGHI (1822-1826). JOHANN JACOB MEYER AND THE FIRST MILITARY HOSPITAL

MEDICINSKA SKRB U SLOBODNOM OPKOLJENOM MISSOLONGIJU (1822.–1826.). JOHANN JACOB MEYER I PRVA VOJNA BOLNICA

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SUMMARY

During the siege of Missolonghi by the Ottomans the conditions of hygiene living, clothing and feeding of the vast majority of enslaved Greeks could be assessed as deprived and miserable. The humid climate and geophysical environment favored the outbreak of epidemics that further darkened an already unfavorable situation of the fighters and their families. Necessarily, the priority was to meet the military and economic needs and secondarily tackling public health issues, health care and medicine - social welfare. The inadequate infrastructure of nursing care, the limited number of health personnel and serious shortages into pharmaceutical material revealed the resolution of those doctors who provided their services

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during the siege. Johann Jacob Meyer, a famous Swiss philhellene, a man known as the first journalist in Greece, along with his Greek wife, contributed to the founding and organization of the first military hospital and to the improvement of the general health care during the siege of Missolonghi (1822-1826).

Keywords: History of medicine; 19th century; doctors; Greek War of Independence; Johann Jacob Meyer; Missolonghi.

Introduction

The vision of the creation of a free and just nation was a permanent and lasting objective of the enslaved Greek Nation after the conquest of Istanbul by the Ottomans in 1453. For four hundred years, the idea of freedom constituted a perpetual ideal that passed from generation to generation, and led to continuous revolts against the Turkish conqueror. The siege and heroic Exodus of Missolonghi (1822-1826) holds a special place in that struggle for freedom. In 1806, Missolonghi was a small city in Turkish occupied western Greece with a reported 6,000 Greek residents and only eight (8) Turks who lived in small houses only a few meters from the lagoon and surrounding marshes of the region [1]. During the siege (1822-1826), roughly 4,000 men (1,000 elderly) and 12,000 women and children were assembled in the city. Missolonghi, in 1825, constituted a microcosm of Greece, in the heart of Greece. Within the city, not only Missolonghi residents and residents of Peloponnese were trapped, but also representatives of all Greek populations from the Isthmus of Peloponnese and further north, as well as European philhellenes [2]. On the night of April 10th, 1826, the populace, sworn to freedom, decided upon the heroic Exodus leaving behind only the sick and injured. It is estimated that on that day, 2,000 people were incinerated by cannon fire, another 3,000 were massacred and roughly 1,000 were taken prisoner by the Turks [3]. The Exodus, despite the disastrous outcome, constituted a source of inspiration for the highest moral values and ideals of human existence, equating absolutely the city of Missolonghi, with the "City of Freedom".

The lack of public health care and welfare of patients and wounded has been particularly marked in Greece during the War of Independence. The combatants and the besieged population of civilians during the siege of Missolonghi by the Turks during the period 1822-1826 had to face all the consequences of non-existent hygiene measures that characterized the camps of combatants and cities gathered refugees.



Figure 1 - Johann Jacob Meyer. https://commons.wikimedia.org/wiki/ Category: People_of_the_Greek_War_of_Independence

The Swiss philhellene and great patriot of Greece, Jacob Meyer (Figure 1), was internationally recognised as the pioneer of Greek journalism and publisher of the newspaper "Greek Annals" («Ελληνικά Χρονικά»), the first printed newspaper of the Greek Freedom movement against the Ottoman Empire which was published in rebellious Missolonghi. His contribution to medical care for the combatants and to the besieged civilians during the siege of Missolonghi by the Turks during the period 1822-1826 remains practically unknown. He started the first serious efforts to deal humanely with the organization of medico-pharmaceutical care during the Ottoman occupation and the Greek War of Independence in the military camp of defiant Missolonghi, with the founding of the first military hospital of rebellious Greece.

Disease and Public Health Care in Rebellious Missolonghi

The conditions of public health during the siege of Missolonghi were extremely substandard, on the one hand due to the exhaustion of the population, and on the other due to the lack of potable water, food, medications, etc. [4]. In addition, the humid climate and the specific geophysical environment

of the region with brackish lagoons contributed to the outbreak of epidemics of which the most prevalent was malaria [5]. Characteristic is the report by Lord Byron himself on the conditions that prevailed in Missolonghi during that particular time period in a letter to Charles Hancock on the 5th of February, 1824: "...if we do not die by the sword, it is probable that malaria will cut us down in this marsh, and to end with a bad play on words, it is better to die from an arrow ($\beta \acute{\epsilon} \lambda o \varsigma$ -velos) than from a marsh ($\acute{\epsilon} \lambda o \varsigma$ -elos). The conditions that prevail in Missolonghi are not unknown to you when the dykes of Holland collapse, it is an Arabian desert in comparison with this place" [6].

The diet of the defiant Greeks consisted of bread, boiled corn, wine, raki, oil and very rarely meat and fish [7]. When the food supplies were exhausted, and having consumed all domesticated animals (cats, dogs, horses, mules, donkeys), as well as every other filthy animal such as mice, the besieged population then started to eat crabs and salt cedar (*Tamarisk - Tamaricaceae tamarix*), a type of shrub which grows by the sea. Consumption of this vegetation caused the entire population of the city to present with pain in the lower extremities and a sort of "madness" lasting several days [8]. Despair and starvation led to the consumption of animal hides and corpses [9], as well as the drinking of brackish water from the lagoon, from the few wells and the cisterns which were full of corpses resulting in unending cases of dysentery [10].

It was reported that most of the sick suffered from stomach pains (which was treated with vinegar), lack of vitamins and scurvy which caused pain in the joints (knees, elbows and ankles) [10] as well as smallpox [11].

In general, during the Greek War of Independence, medical treatment such as anaesthetics, blood transfusions or disinfection were unknown. The care of the wounded was usually performed by their fellow combatants on the battlefield. Treatment consisted of cleaning the wound with raki (an unsweetened, anise-flavored alcoholic drink) and placing improvised ointment made from egg whites, olive oil and raki, or soap made from olive oil and raki. Dressing of the wounds was performed with strips of cloth and small reeds, while the splints were made of wood or cardboard [12]. Haemostasis was performed with a red-hot iron, while for treatment of haemoptysis due to chest wounds, hot wine mixed with butter was used [12]. Generally the treatment of fever was massage with oil, the treatment of flu-like symptoms with the administration of an extract from dried figs, carob (Carotonia siliqua) or hot wine with pepper [13]. The medications used by the doctors consisted usually of herbs such as aloe vera, theriaca (a drug consisting of a

mixture of 60 herbs, an antidote for poisons, known from the time of Galen), green or true cardamom (elettaria cardamomum), centaurium herb (centaurium minus moench-erythraea centaurium), ginger (zingiber officinalis), elderberry (sambucus nigra), ferula (ferula assafoetida), etc., the use of which went back to the time of Pedanius Pedanius Dioscorides (c. 40-90 A.D.) and were easy to find amongst the flora of the Greek countryside [14]. They also used pharmaceutical and chemical substances such as wormwood salt (Artemisia absinthium), borax, tartar emetic (antimony potassium tartrate), oxymeli (a mixture of aged sweet wine, honey, raisins and fig extract) and preparations of myroxylon basamum or toluiferum (balsamo di Tolu, elixir propiepatis, etc.) which were supplied from Istanbul, the Ionian Islands, Smyrna and Trieste [15]. As a hypnotic, opium was used for which article 15 of the agreement which the leaders of the Missolonghi Garrison signed prior to the heroic Exodus states: "...At nightfall the parents should administer opium to all the small children in order for them not to cry" [16].

The aforementioned provides a vivid picture of the healthcare conditions in besieged Missolonghi and generally during the Greek War of Independence. The Greek combatants' wish "good bullet" (« $K\alpha\lambda\delta$ $\beta\delta\lambda\iota$ ») expressed the desire for a quick, painless and heroic death.

Greek and European Doctors

The doctors that provided medical care in free-beseiged Missolonghi were Greek and Philhellene medical doctors, as well as Greek practical doctors. The latter were known as "Asclepiadae", originating mainly from the city of Ioannina in Epirus. The practical doctors had great experience in traumatology and were very capable in the reduction of fractures and luxations. Most had trained in schools which were run during the Turkish occupation and were taught lessons relevant to medical and pharmaceutical care. Such schools existed in the island of Chios, Karpenissi, Athens, Mystra, etc. Many were members of families where medical knowledge was passed from generation to generation in accordance with ancient Greek tradition. Finally, some learned from physician-surgeons [17].

The physician-surgeon from Epirus, Gregory Doukas Tsiapas, provided his treatments and care in Missolonghi and fell in the Exodus of Missolonghi, along with his sons and relatives [18]. The surgeons G. Ionas and N. Konstantinou, as well as Vicentzos "Romanos" Mavrikos, the physician-surgeon from Corfu, entered Missolonghi in 1823 with medical

and pharmaceutical supplies provided by a pharmaceutical merchant from Corfu [19,20].

Doctor P. "Agiomavritis" Stephanitzis was the sole surviving physican of the heroic Exodus along with his adopted son Nikolaos [19]. In addition, the two personal physicians of Lord Byron are mentioned, the Dutchman Julius Millingen, sent to Greece by the London Philhellenic Committee of the Ionian Islands and the Italian surgeon Francesco Bruno who had published books in Italian and in the demotic Greek dialect in order to familiarize the combatants with the maintenance of rules of hygiene. The book sold for 60 paras (Othoman coinage) [21].

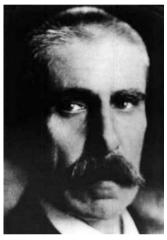


Figure 2 - Loukas Vagias. (www.greekencyclopedia. com)

The outstanding Greek doctor, Loukas Vagias (Lekli, Epirus? - died in Argos 1828) also requires mention. Loukas Vagias (Figure 2) was a member of the Society of Friends, and as the brother of Thanasis Vagias (chief commander of Ali Pasha), had been sent, at Ali Pasha's expense, to study medicine in Europe. Vagias remained in Europe twelve years, studying at the Universities of Paris, Vienna and Leipzig. He married the daughter of the scholar and Ioannina School Headmaster Athanasios Psalidas, He was initiated into the Society of Friends and provided his services to the nation along with Alexandros Mavrokordatos. In 1824 he treated Lord Byron in Missolonghi, Julius

Millingen describes him as "friend of the Souliote Kostas Botsaris". He died in 1828 in Argos in the midst of bloody engagements with French troops [22].

Johann Jacob Meyer and the first military hospital

Johann Jacob Meyer (December 30, 1798 - April 4, 1826), son of Johann Meyer was born in Zurich, Switzerland in an urban family of physicians. He studied Pharmacology and Medicine but then, without graduating, was expelled from the University of Freiberg due to debts. In 1817, he married Salomea Staub from whom he divorced a year later [23].

Liberal, active and adventurous as a character, Meyer presented as a physician and surgeon to the Philhellenes' Committee of Bern and came to

Greece in the first months of the Greek Revolution against the Ottoman Empire to help with the medical care of the Greek fighters. On February 20 1822 he took part in the Battle of Patras under the leadership of Greek Admiral Andreas Miaoulis and in the battle of the Corinthian Gulf from the 5th until March 6, 1822 [24].

Afterwards, he settled in Missolonghi, where he married the beautiful, affluent Altana Inglezou descended from Missolonghi and with whom he converted to Orthodoxy and had two children. His full integration into the Greek society was highly appreciated by the notables of Missolonghi and he quickly became one of the reputable citizens of the city. At the end of 1821, with the support of the British philhellene Colonel Leicester Stanhope and of the Swiss Philhellenes, along with philhellene German physician and head doctor of the Greek Army Johann Daniel Elster (16 September 1796 in Benshausen - December 19, 1857 in Wettingen), founded the first hospital and pharmacy in rebellious Missolonghi and probably the first military hospital of the Greek War of Independence. The hospital was financially supported further by Lord Byron after his arrival and his settling at Missolonghi, in February 1824. The hospital managed to secure medical care for the city until the heroic Exodus in April 1826 [25,26]. The hospital operated initially in a property of Altana Inglezou-Meyer on the corner of today's Lord Byron and Harilaos Trikoupis streets (the building has not been saved) [27]. It was an abandoned house near the sea, which had been modified appropriately for patients, using simple planks instead of beds [28].

Casualties of war and the sick from Missolonghi were treated for free in the hospital [29]. It is worthy of note that the hospitals of the Greek Revolution at the beginning of the 19th Century, did not exist with the contemporary meaning. The first infirmary, according to the historians of the Revolution, provided one or two wards and a kitchen, as well as a doctor, servants and usually a female cook [25].

During the long siege of Missolonghi by the Turks (April 1825 - April 1826) the hospital was forced to relocate to the "Serai" as it was called by the people of Missolonghi, the former Turkish headquarters. It operated as was characteristically reported: "for the wounded combatants of western Greece who do not have homes in order to be in one place and to be treated by a doctor promptly and without difficulties..." [30]. In another document, the building was also referred to as the "Palation", the "Public House" and the "Town Hall-Voivontiko".

The building remained until the end of the Second World War and was replaced by the old central bus station [27].

Johan Jacob Meyer and Altana Inglezou-Meyer provided all the economic and material support which was required for the operation and maintenance of the hospital and together with the doctor Johann Daniel Elster offered tirelessly all the necessary sanitary services. The Swiss Emil Rothpletz, in his treatise about Meyer in 1931, noted specially about Altana Inglezou-Meyer that: "She provided many services, as well as the care of the wounded and helping the chief doctor Elster in his weighty and tiring labour. When Elster finally returned from the battle of Peta (July 16, 1822), in which the entire Philhellene Battalion was wiped out by the Turks, only the rest and treatment provided by Meyer's hospital saved him from death due to exhaustion" [31]. The German Officer and philhellene Karl von Normann-Ehrenfels (born 14 September 1784) was treated also in the same hospital where, unfortunately, he contracted "gastric fever" and died on November 11, 1822 [32].

Jacob Meyer, along with his wife Altana, founded also the first pharmacy in rebellious Missolonghi. Colonel Stanhope provided significant help by writing letters from Missolonghi in 1823 and 1824 and asking for support from the London Philhellenic Committee [33]. Initially the minimal principle of 40 pounds was used and a modest sum of taxation was placed exclusively upon the rich [32]. With the approval of the Greek politician and diplomat Alexander Mavrokordatos (February 11, 1791 - August 18, 1865), the Philhellenes' Battalion equipped from this pharmacy, all necessary medications for the Battle of Peta in Epirus in 1822 [34]. There was a second pharmacy in Missolonghi up to and during the second siege of the city with an Italian pharmacist, Petro Carolo [11].

Epilogue

When the besieged soldiers and noncombatant citizens of Missolonghi had no possibility for further resistance against the Turkish and Egyptian armies, they made the heroic Exodus. The event took place the night between April 10 and 11, 1826 and is counted amongst the most significant events in international military history. Johann Jacob Meyer, the excellent physician and apothecary was killed along with his wife and children, as well as, their maidservant Sanna, amongst the mass of Greeks who, at 2 o'clock in the night, started the Exodus and the heroic sacrifice for freedom. With him he carried his personal journal in which he recorded the events in Missolonghi



Figure 3 - The sortie from Missolonghi by Theodoros P. Vryzakis, 1855 (National Gallery and Alexander Soutsos Museum, Athens Greece)

after the cessation of publishing of the "Greek Annals" on February 20, 1824 and which was unfortunately lost. A monument to him is found in the Garden of Heroes in Missolonghi.

The Missolonghi poet and academic Georgios Drosinis (1859-1951), writing the foreword to his work "Diary of the Siege of Missolonghi 1825-1826", from the "Greek Annals" of Meyer wrote characteristically of the Swiss Philhellene: "Bless Solomea Meyer nee Staub, who asked for a divorce from Meyer, and three times blessed the Chancellor of the University of Freiburg, who dismissed him. If these events had not transpired, Switzerland would have had one more good family man and one more doctor or pharmacist, but Missolonghi, would have been deprived the Polybius of her siege and the blood of a descendent of William Tellaccording to his own declaration - would not have been mixed with the blood of the heroes of Greece" [24].

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Sažetak

Tijekom otomanske okupacije Missolonghija higijenski se uvjeti življenja, odijevanja i ishrane za većinu zarobljenih Grka mogu opisati oskudnima i bijednima. Vlažna klima i geofizički okoliš pogodovali su izbijanju epidemija koje su pogoršavale ionako nepovoljan položaj boraca i njihovih obitelji. Neadekvatna infrastruktura njege, ograničen broj medicinskog osoblja i ozbiljan nedostatak farmaceutskog materijala otkrivaju odlučnost liječnika koji su pružali svoje usluge tijekom okupacije. Prioritet je nužno bio zadovoljiti vojne i ekonomske potrebe, a potom riješiti problem javnog zdravlja, zdravstvene skrbi i medicine – društvenog blagostanja. Johann Jacob Meyer, glasoviti švicarski helenofil, poznat kao prvi novinar u Grčkoj, sa svojom suprugom pridonio je osnivanju i organizaciji prve vojne bolnice i poboljšanju opće zdravstvene skrbi tijekom opsade Missolonghija (1822.–1826).

Ključne riječi: povijest medicine; 19. stoljeće; liječnici; grčki rat za neovisnost; Johann Jacob Meyer; Missolonghi.