

The Fight Against Diseases with Medicine and Wound Care in the Ottoman Army During the Greco-Ottoman War of 1897

1897 Osmanlı-Yunan Savaşı Boyunca Osmanlı Ordusunda Yaralı Bakımı ve Hastalıklarla Mücadele

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Geliş Tarihi/Received: 15.10.2009
Kabul Tarihi/Accepted: 07.12.2009

This paper was presented as "The Unknown Actors of the Turkish-Greek War of 1897: The Struggle of Microorganisms with Medicine and Wound Care", in MESA 2008 Annual Meeting in November 22- 25, Washington DC.

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ÖZET 1897 Osmanlı-Yunan Savaşı Osmanlı Devleti'nin askeri tıp alanında son derece önemli bir gelişme kaydettiği savaştır. Bu savaşta Osmanlı Devleti cephe gerisindeki sağlık hizmetlerindeki yetersizliği açığa ortaya çıkmıştır. Savaşın en önemli kazanımlarından biri dezenfeksiyon ve hijyenin insan sağlığı açısından öneminin anlaşılmasıdır. Cephe hijyen yetersizliğinden dolayı askerlerin bir çoğunun yarası kangrene dönüşmüş, bu yüzden bazıları ölmüş, bazıları da uzuvlarını kaybetmek zorunda kalmıştır. Başarılı ameliyatlardan sonra yarının enfeksiyon kapmasına bağlı olarak çok sayıda asker kaybedilmiştir. Ayrıca hijyen sağlanamadığından savaşın hemen ertesinde başlayan salgın hastalıklar yüzünden pek çok asker yaşamını yitirmiştir. Bu olumsuz tecrübelerin yanı sıra, Osmanlı-Yunan Savaşı bilhassa savaş cerrahisi konusunda hem çok başarılı ameliyatların yapıldığı hem de dünya tıbbının gelişmesinde çok önemli uygulamaların başlatıldığı bir savaş olarak tarihe geçmiştir. Bilindiği üzere, 1897'de gerek Avrupa'da gerekse Osmanlı'da savaş cerrahisi konusunda bilgi ve pratikler yetersizdi. Fakat tıp bilgisindeki eksiklikler, kısıtlı malzeme, ve cephedeki güç koşullara rağmen cerrahların bu savaşta en zor ameliyatları yapma cesaretini gösterdikleri ve önemli başarılar imza attıkları bir gerçektir. 1897 Osmanlı-Yunan Savaşı X ışınlarının keşfinden sonra, iki cephe de sistemli askeri tanınal radyograflerin çekildiği ilk savaştır. Bu savaş Osmanlı Kızılayı'nın tarihsel gelişimi açısından da büyük önem taşımaktadır. Savaşın kısa bir süre önce yeniden faaliyete geçen Kızılay, ilk kez Osmanlı-Yunan Savaşı'nda etkili bir hizmet vermiştir. Ayrıca savaş boyunca Uluslararası Kızılhaç Örgütleri hem Osmanlı İmparatorluğu'na hem de Yunanistan'a sağlık yardımı gönderdiler. Bu savaşta Kızılay ve Kızılhaç örnek bir dayanışma sergilediler.

Anahtar Kelimeler: Kızıl haç; bulaşıcı hastalıklar, acil; ergen sağlık hizmetleri; nükleer tıp; sağlık hizmetleri; radyoloji

ABSTRACT The Ottoman-Greece War of 1897, is one that the Ottoman State had important improvements in military medicine. During the war, it was apparent that the Ottoman State was inadequate in health care services behind the front-lines. One important acquisition of the war was that it was understood that hygiene and disinfection was crucial for human health. The lack of hygiene caused many soldiers' wounds became gangrene in the front, therefore some died, some lost various ribs. Though the operations were considered successful, many soldiers were lost due to infections in their wounds and many soldiers were lost because of contagious diseases right after the start of the war because of the lack of hygiene. Besides of those negative incidences, this war is one that many successful operations were achieved and furthermore it influenced the medical practices in world in general by some practices. As is known, In 1897 information and practise on war surgery were insufficient both in Europe and in the Ottoman Empire. But, in spite of limited medical information and materials and under trying conditions of the fronts, Ottoman surgeons showed the courage to perform some very difficult operations in this war and became successful. Moreover, the Ottoman-Greek War is the first war during which radiographies of systematic military diagnostic cases were taken in both fronts after the discovery of the X rays. Moreover this war had become very important, because it stimulated the historical development of the Ottoman Red Crescent. The solidarity between the Red Crescent and the Red Cross was a memorable one. The Red Crescent, which was founded just before the war, offered its services for the first time in the Greco-Ottoman War. During the same war the International Red Cross Foundation sent health assistance to both the Ottoman Empire and Greece. The solidarity between the Red Crescent and the Red Cross was a memorable one.

Key Words: Red cross; communicable diseases, emerging; adolescent health services; nuclear medicine; health services; radiology

For Greece, it is claimed that there were two main reasons behind the Greco-Ottoman War of 1897: the Crete issue and the economic situation of Greece after the bankruptcy of 1843.¹

The conflict between the Ottoman Empire and Greece due to border disputes began in 1896. Greece, which became an independent state with the Conference of London held in 1830, wanted to include within its own territorial borders regions where Ottoman Greeks comprised the majority of the population. The counties of Epirus and Ioannina, where the Rums (Ottoman Greeks) comprised nearly two-thirds of the whole population, could be mentioned as the most prominent among such regions.² Greece proclaimed this aim for the first time during the Berlin Treaty of 1878 under the name of *Megali Idea* and demanded that the Ottoman Empire leave Thessaly, Epirus and Crete to Greece.³ Even though the Ottoman delegation strongly opposed this demand during the Berlin Conference held two years later (1880), the Great Powers decided that the Sublime Porte should make border arrangements in favour of Greece. In this respect, in 1881 a border arrangement was made to leave Thessaly to Greece and thus the dispute between the two countries was settled for a brief time. However, this settlement was to the satisfaction of neither Greece nor the Ottoman Empire. In 1895 an insurgency began in Crete in order to join Greece. On February 10th, the Greek government sent a torpedo-boat flotilla under Prince George to Crete and three days later Colonel Vassos proclaimed “the annexation of Crete to Greece.” Great Powers didn’t accept this *fait accompli* and decided on international intervention. Meanwhile, in 1 February 1897 the Greek government of Deliyannis determined to forestall them by sending an expeditionary force to capture the island.⁴ The Greek government decided to distract attention to the Balkans.

The war started first with battles between border guards. On 28 March 1897, approximately 1.800 armed men and 70 Italian volunteers of *Ethniki Etairia*⁵ (National Society) attacked the Turkish-Greek border in Teselya/Arta. And Turkish border guards responded to the attack.⁶

The attacks initiated by the organisation of *Ethniki Etairia* grew into armed conflict on the border of Thessaly and Macedonia.⁷ As a result of these incidents, the Ottoman government decided that partial mobilisation should be ordered on February, 15th, and on 17 April 1897, it declared war on Greece.⁸

The Ottoman army had been undergoing modernisation by German Major Von der Goltz since 1883. But, it could not be said that the army was ready for this war. Serious deficiencies were being experienced especially in transportation and health services.

In accordance with the operation plan, the Ottoman armies would be organised under two armies as the Ellasona Army and the Ioannina Army. Accordingly, the operation area of the Ellasona Army, which consisted of 7 divisions, included the Ellasona, Kozkoy, Cayhisar and Deskati regions; whereas, the operation area of the Ioannina Army, which consisted of 2 divisions, included the Metsovo, Ioannina, Pigadia and Loros (Filipiadis) regions.⁹

During the Ottoman-Greek War, two fronts were opened in Thessaly and Epirus. The war was fought mainly in north-eastern Greece. The first battle began on the Thessaly front in Milona on April 18th. According to Stephen Crane, Greece was totally unprepared. In Thessaly some 60.000 Turks under the command of Edhem Pasha moved against some 45.000 Greeks under Crown Prince Constantine, the Duke of Sparta, and resulted in the victory of the Ottoman forces.¹⁰ Upon the Ottoman invasion of Trikala, where the general headquarters of the Greek army was located, on April 24th and of Larissa a day later, the Greek army had to retreat to Varda. Since the Greeks had to leave Larissa in a hurry, many weapons, ammunition, materials and a mobile hospital were left to the Ottomans.¹¹ On April 27th, the Ellasona headquarters was moved to Larissa. On April 30th, Turkish forces were defeated by the Greek forces in Veles-tin. On May 5th, the two armies engaged again, this time in Pharsala. Ethem Pasha inflicted great losses on the Greek side. Since the Greek Supreme Mili-

tary Command had gathered most of its forces in Domoko, which was located south of Pharsala, the outcome of the war would be evident at this location. In the battle fought on May 17th, the Greek army was totally ruined.¹²

On the Epirus front, however, the Greeks passed the Arta River and attacked the Ioannina Army Corps on April 19th. During the battle, which lasted for a day, the Ottoman forces managed to halt the Greek forces. However, on April 21st, Greek warships bombarded the Preveza Castle in two groups. At the end of the skirmish, which continued until April 29th, the Greek forces had to retreat to the Arta River. On May 13th, the Greek forces organised an assault by landing in Cayagazi, Preveza. At the end of an armed conflict which lasted three days, the Greeks retreated, leaving behind 200 dead, many weapons and materials. Two days after this operation, on 17 May 1897, the Ottoman Chief of Staff decided that the military operation should cease.¹³ It was reported by commander Edhem Pasha that 1105 soldiers died, 3250 soldiers were wounded, 202 soldiers were captured and 63 soldiers were missing from the Ottoman Army during the Greco-Ottoman War in 1897.¹⁴

Military failures following one after another had a political impact in Greece and resulted in the dissolution of the cabinet in Athens. The new cabinet appealed to the Great Powers for immediate armistice. Tsar Nikola sent a telegram to Abdulhamid II and requested that the war be stopped at once. Thereupon, an armistice was signed on May 19th and the war that had lasted for 32 days was ended. In accordance with the Treaty of Istanbul, signed on 4 December 1897, it was decided that Thessaly should be left to Greece, provided that some minor border changes were made, that the borders should be restored to the pre-war conditions.¹⁵

MOBILISATION PERIOD

It is known that the health services provided by the Ottoman Chief of Staff during the mobilisation period suffered various deficiencies. Some of the arrangements remained on paper and were never implemented. Therefore, during the war many difficulties were experienced mainly in field health

services and also in health staff, transportation means, and health materials. The Second President of the Medical Office, Ahmet Hilmi Pasha, was appointed as the President of the Health Department of the Army within the framework of war preparations.¹⁶ Dr. Mehmet Fahri, Professor of Hygiene at the Imperial Medical Society, was also appointed as the President of Mobile Health Services in order to be in charge of health care and treatment of the injured during transportation.¹⁷ Based on the new organisation of the mobilisation period, a health team comprised of a physician in chief, an operator, a surgeon and a pharmacist would be appointed to each division. It was further decided that two hospital tents, a patient transportation squad, hospital equipment for 50 beds and medicine and materials in sufficient amounts should also be assigned to each division.¹⁸ Nevertheless, these decisions could not be implemented properly due to insufficiencies experienced in medical staff and materials. Besides the material insufficiency, only one or two physicians, three or four surgeons or caregivers could be appointed to each division.¹⁹

The conditions of the hospitals were also discussed within the framework of preparations for the war. Areas that could be used as hospitals were determined in this region immediately after declaration of the mobilisation. In this respect, a big central hospital of 800 beds was established in Ellasona. In accordance with the plan, this hospital would be the centre for the injured and sick soldiers who would be gathered and transferred to hospitals behind the front. Furthermore, it was decided that a hospital of 50 beds should be established in Amyntaion; whereas, hospitals of 200 beds should be established in Preveza and Loros. Hospitals of 350 beds were established in Neapoli, Servia and Veria. The capacity of the military hospital in Ioannina was increased to 1000 beds by assigning a proper building.²⁰

The most serious difficulty during the war was experienced in mobile hospitals, and therefore, in field health services. These hospitals were of the utmost importance since the soldiers injured at the front received their first medical attention there. At the beginning of the war, mobile hospitals we-

re opened in Katerini, Kozkoy, Ellasona, Domenik, Cayhisar, Deskati and Grebena. The injured, whose wounds were dressed there, would then be transferred to the central hospital of 800 beds in Ellasona.²¹ However, this hospital was moved to a nearby village named Kilise due to the large number of injured transferred from mobile hospitals and since the general environment of Ellasona was found inadequate for health services.²²

Some of the arrangements made in health services focused on the supply of pharmaceutical materials. There was a great need for health equipment and pharmaceutical materials. As a matter of fact, efforts were made to supply sufficient medicine from Istanbul at the beginning of the war. Sterilisation solution pastilles (sublime pastilles), chloroform and phenol were ordered from Vienna. Some of the soft and cotton material used for wound dressing, hydrophilic gas and tincture diode were supplied from the stores in Istanbul and the rest was purchased from Vienna. Chloroform was the only anaesthetic used and was highly deficient in stock.²³

Another issue dealt with during the preparations was the supply of transportation vehicles, which was significant for both transferring the soldiers to the front and transportation of the injured to the hospitals. At the beginning of the war, animals of the immobilised battalions were seized and assigned to the mobilised units. On the other hand, "The Law on Supply of Transportation Vehicles" was enacted on February 16th, and it was ordered that each reserve troop should bring 209 pack animals with it. Furthermore, two commissions were established in Southern Russia and in Ottoman Empire and animals began to be purchased via these commissions. The Sultan ordered that the injured be transported in carriages equipped with springs, and four-wheeled horse carriages with opening roofs called *landau* or *landonet* were brought from abroad.²⁴ Yet, despite all these efforts, the deficiency experienced in the transportation vehicles could not be overcome.

WAR PERIOD

After the mobilisation preparations were finished, it was time to transfer the military units to the

front. By imperial order, the military units were forbidden to go to Istanbul. Thus, the units to be transferred from Asia Minor to Rumelia were taken from the Black Sea and Marmara ports without entering Istanbul and carried to Rodosto via sea lane. The units that landed at Rodosto (Tekirdag) marched to Muratlı Station and then transferred to the Thessaloniki and Bitola (Manastir) lines over Pition (Kuleliburgaz)-Alexandroupoli (Dedeagac). Thereafter, the units were divided into two and those to be sent to the Ellasona region went to the Veria and Amyntaion stations on the same line; whereas, those to be sent to Ioannina went to the Bitola Station.²⁵

The war began on the Ellasona front on April 18th. After the first battles, the defects in the Ottoman health services became visible. Military health authorities did their best and endeavoured to provide both mobile and fixed hospital services. The biggest hardships, however, were experienced in field health services.

HEALTH SERVICES PROVIDED BY THE OTTOMAN BANK

Soon after war broke out, Edgar Vincent, Manager of the Ottoman Bank, took steps to help the injured. He sent a telegram to Clive Bigham, *The Times* reporter in Ellasona on April 19th and declared that the bank was engaged in health assistance preparations and asked him to notify the bank regarding the equipment and materials needed there. He further informed the Ottoman government that they intended to establish a health team and a fully-equipped hospital, provided that all expenses would be financed by the bank.

On April 20th Ahmet Hilmi Pasha, Health Chief and Inspector of the Greek Border, accepted Vincent's offer for medical assistance.²⁶ Thereupon, the health team established by the Ottoman Bank left Thessaloniki for Thessaly on 23 April 1897 with a considerable amount of medical equipment and materials.²⁷ Dr. Edmond Lardy, who had worked as the chief of the surgery clinic of the French Hospital in Istanbul, presided over the team. Members of the team were: Dr. Severin Bilinski, Harold Woods, C.H. Holmes, Imam Seyid Ali Muhtasa

Efendi, Dr. Fuad Süreyya, Dr. Pertev Tahsin, Dr. Semsi Omer, and Captain Fuad. Furthermore, 10 male Muslim caregivers, who were scrupulously picked, and three reliable stewards were also working for the team.²⁸ The team had 200 beds, mattresses, many medical tools and equipment, medicine and foodstuff with them.²⁹

Upon the arrival of the Ottoman Bank team to Serovic, it became apparent that there were problems in communications and other organisational arrangements. The basic arrangements with regards to which hospital the team would work in, how the medical equipment they had brought with them would be replenished and who would be responsible from the same had not yet been made. In view of the circumstances, Dr. Lardy, Physician-in-Chief of the Ottoman Bank Mobile Hospital, contacted the Commander-in-Chief Ethem Pasha and requested from him that the organisation necessary to enable the team to start working as soon as possible be made. Ethem Pasha, considering the high amount of the injured, decided that the team should start working in Larissa. Thereupon, the medical team was to start work in the 200 bed hospital assigned to them on May 1st.

In accordance with information provided by Dr. Lardy, there were many injured in the city. In spite of the fact that there were 200 beds in the hospital, the number of the injured was far greater.³⁰ Besides the Turkish soldiers, there were also many Greek soldiers in the hospitals. After the Greek armies were defeated, the physicians in the hospitals left sick and injured Greek soldiers behind them while running away. Until the Turkish physicians entered the city the day after, most of the sick and the injured had lost their lives due to lack of medical care.³¹ Upon arrival of the Ottoman soldiers, the number of sick and injured multiplied. Although everywhere was full of injured soldiers, more were being transported from the front via carriages. There were severely injured and those whose conditions worsened due to lack of medical attention among them.³² Members of the team provided the first medical treatment and then discharged the slightly injured, thus opening more space for the severely injured.

In the count made in the hospital on the first day, there was a total of 212 injured and sick, with 62 transfers from the military hospital. Services were provided with the help of the veteran physicians and translators. Doctors Pertev, Remzi and two medical students from Paris, who were born in Thessaloniki and could speak Turkish, worked as translators. Imam Ali Muhtasa Efendi was engaged in religious services and burials. Autopsy was absolutely forbidden.³³ The medical team of the Ottoman Bank treated at least 200 patients in Larissa. The hospital became to be known as the "Bank hospital" among the Ottoman soldiers due to the perfect health services it provided.³⁴

Two more health teams came from France and Switzerland in order to help the injured and sick Ottoman soldiers, again thanks to the support of the Ottoman Bank. On May 11th, first the French team and then the Swiss team of the Ottoman Bank arrived at Pharsala and started their duties there. Bonkowski Pasha, Chief Chemist of the Ottomans and the General Inspector of Good Hygiene offered the team to establish a field hospital of 400 beds outside the city for those injured during the battle in Domoko. Nevertheless, when the team arrived at Pharsala, it was understood that no preparations were made for the hospital and that even arrangements to accommodate the team in the city were not ready. Thereupon, Bonkowski Pasha ordered that soldiers should clean some of the city dwellings and turn them into a hospital. Wound dressing materials and tents were demanded from Ahmet Pasha, Health Chief of the Greek Border, and his assistant Mahmut Pasha. Upon the arrival of materials, the buildings were ready to serve as a fully-equipped hospital. Staff of the health team of the Ottoman Bank regularly supervised the hospital in Larissa to ensure that everything was in order there. The French team treated approximately 2000 injured while they were in Ellassona.³⁵

The health team of the Ottoman Bank established a wound dressing centre immediately behind the conflict area in Domoko. Those wounded at the front would receive initial medical attention there. Before the war broke out, bandages provided by Bonkowski Pasha were distributed among

the officers and non-commissioned officers. Therefore, there were sufficient amounts of bandages. These bandages were among the equipment left behind by the Greeks when they abandoned Larissa. Wound dressing of the soldiers coming to the centre with their own bandages was immediately made. Their wounds were cleaned and dressed. Then the soldiers the diagnosis reports in their hands had to walk 300 km in order to reach the transportation vehicle.

On the 18th of the same month, M. Robineau, M. Monod, Dr. Lardy, Bonkowski Pasha and his men left Pharsala for Domoko accompanied by a convoy of 20 vehicles assigned to them. Intensive armed conflicts took place in Domoko and there were many injured soldiers who could not receive official health services on the battlefield. On the other hand, the reserve squad in Edirne was engaged in burying the dead. Bonkowski Pasha, who visited the battlefield, left the materials he had brought with him for the injured. Among these materials, Genest and Herscher brand disinfecting and soothing sprays facilitated wound dressing considerably. Physicians in the medical team of the Ottoman Bank used these sprays to clean the wounds of the injured. Furthermore, Bonkowski Pasha sent motor vehicles and ox carts to this region to transfer soldiers to the hospitals behind the front. Thus, as a first step, 200 slightly injured could be transferred from this region to Larissa. Transfers continued until the 24th. Russian ambulances were also used during these transfers.³⁶

HOSPITALS

Hospitals opened and enlarged during the mobilisation were inefficient during the war.

Since injured soldiers kept coming from the front in successive groups, new hospitals were needed. Soon after the war broke out, Sultan Abdulhamid II ordered that two new hospital barracks, one with 600 and the other with 100 beds, should be built near Yildiz Palace. Three wards from these barracks, construction of which was completed at the end of May, were assigned to the German Red Cross team.³⁷

On the other hand, a central hospital with 800 beds was established in Thessaloniki, which was reserved for gathering and discharge of the sick and the injured. This hospital was clean and very well organised.³⁸ After Larissa was taken by the Ottomans, the central hospital in Ellasona was moved to the quarters in Larissa and turned into a hospital of 300 beds. Since Larissa was connected to the newly invaded places with railway and highways, it was very suitable for the transfer of patients.³⁹ The Ottoman army was settled in three hospitals in this city: 1- The new hospital (on Penee coast of the city); 2- the old hospital (a wooden building in the centre of the city. Mostly the sick were accepted to this hospital); 3- the central military hospital (at the military base in the south of Larissa).⁴⁰

Furthermore, hospitals of 150 beds and convalescent hospitals of 400 beds were established in Karditsa, Phanar and Tirnovos each. Together with these hospitals, the number of hospitals increased to 17 including the hospitals in Domoko, Pharsala, Volo, Larissa, Trikala, Ellasona, Deskati, Grevend, Neapoli, Lithor, Katerini, Veria, Amyntaion and Kozkoy.⁴¹

Parallel with the increase in the number of hospitals, new staff was needed in order to staff these hospitals. Until 19 April 1897, 172 physicians, 146 pharmacists, and 151 surgeons were sent from Istanbul to the hospitals on the Greek border.⁴²

TRANSFER OF THE INJURED TO THE HOSPITALS

Throughout the war, various difficulties were experienced in the transfer of soldiers to hospitals behind the front. The injured to be transferred to these hospitals either marched to the hospitals or were transferred there on horse back, in carriages or oxcarts. At the beginning of the war, Sultan Abdulhamid II ordered that the injured be carried to the hospitals behind the front in carriages equipped with springs and that longer distance transfers should be made via trains. Carriages equipped with springs were purchased from abroad for this purpose. Since these carriages were few in number, they could be used in some regions on a limited

scale.⁴³ One of those regions was the Ioannina-Bitola line. Injured and weak soldiers coming out of the Ioannina hospital were sent to Bitola with these carriages.⁴⁴ On the other hand, trains specially designed to transfer injured and sick soldiers were ordered for the Thessaloniki, Bitola and Eastern Railway Companies. Two specially designed trains were prepared and supplied within a short time and began to be used on May 7th. In each of these special trains, there were 10 wagons with 8 beds each. Transfer of the injured from Ellasona would only be made via these trains. These trains were further used in the transfer of injured soldiers from Bitola to Thessaloniki. After these special trains were acquired, a medical team consisting of President of the Mobile Hospital Dr. Mehmet Fahri, Dr. Rıza Tevfik, and Dr. Fuad Bey went to Bitola. After the members of the team examined the injured who arrived at Bitola from Ioannina, they transferred 38 injured to Thessaloniki in Pullman cars.⁴⁵

On May 1st, 244 injured were sent to Thessaloniki from the front via train. Some of those were hospitalised in Yildiz Hospital; the rest were accepted into Gumussuyu Hospital. Fevzi Pasha, Vice-President of the Commission of Military Inspection, visited the hospitals on May 2nd to see the condition of the injured and to convey to them the Sultan's regards.⁴⁶

Some of the injured treated in hospitals established by the Red Cross Societies in Pharsala and Domoko were sent to Larissa and later transferred to Istanbul from there over Volo via trains.⁴⁷

After the Domoko battle, some problems arose during transfers due to the high number of injured. The existing transportation means were not sufficient to carry all of the injured. For this reason, the injured sometimes had to wait for a long time in order to be transferred to the hospitals behind the front. It was seen that some sick soldiers were gathering in a disorderly fashion, or sometimes standing all alone in the train stations or lines under miserable conditions. For instance, 52 injured soldiers waited in Pharsala for a long time to be sent to a hospital without wound dressing. Due to these problems and troubles during the

transfer of the patients, the Ottoman Bank sent a letter to Edgar Vincent requesting money for a hospital ship. With the efforts of Edgar Vincent, an Italian hospital ship entitled *Roma* was leased with the money deposited in the account of the Swiss Red Cross and all of the injured together with five sick soldiers were taken from this region.⁴⁸ This ship, which was organised to carry more than 300 injured, was equipped with medicine, food, beds and other equipment and physicians were appointed to provide medical services to the injured. Therefore, as of June, transfers via sea lane also started besides the land route.⁴⁹

Organisational defects played a major role in the problems experienced during the transfers together with the insufficiency of the transportation means. In the documents kept in the archives of the Chief of Staff, it is also seen that there were problems in the transfer of the sick and injured soldiers to the hospitals. It is written in these documents that some of the patients, while being transferred via carriages, got off with some excuses and were left all alone on the roads. Since transfer of patients in a disorderly fashion would cause the dissemination of diseases, it was ordered that the transfers should be seriously followed up and made in an orderly fashion. The Ottoman Chief of Staff, evaluating the reports received on this issue, reorganised the transfers and adopted new measures. Accordingly, it was required that the sick and the injured be made comfortable during the transfers and that the transfers be made in an organised manner. It was absolutely forbidden to let the patients get off the transportation means by themselves due to any reason whatsoever. On the other hand, it was further required that patients under these conditions be accommodated in places nearest to the railways or roads. Until the trains arrived, they should be, if possible and deemed necessary, examined by the physicians during waiting. When the train arrived, they were to board in groups accompanied by an officer and be taken to Larissa and everyone was to be attentive to these matters.⁵⁰ After these arrangements, transfers began to be made in a more orderly fashion and serious problems were eliminated.

ASSISTANCE PROVIDED BY RED CROSS SOCIETIES

When the war broke out, the Ottoman Red Crescent Society was not active. The Society served during the Ottoman-Russo War of 1877 for the first time and after this war ended, it ceased to be active. After the Greco-Ottoman War of 1897, it was decided that the Society should be re-established. Six of fifteen members announced that the Ottoman Red Crescent Society had an account of 9000 pounds in the Ottoman Bank and a store full of medical equipment in Tophane and that the Society would become active again.⁵¹ On April 25th, it was decided that the number of members should be increased. Furthermore, with the money collected from the public and the monetary aid of the Red Cross Societies, two ships were hired from Volo in the name of the Red Crescent to carry the injured. The Society sent quinine sulphate, medical equipment and materials to the front.⁵² Nevertheless, since the Society was in the phase of establishment, its services for this war were limited. Military health services were mainly provided by the army and foreign Red Cross Societies.

After the war broke out, the International Committee of the Red Cross Society in Geneva, under the scope of the Geneva Convention of August 22nd, requested permission from the Ottoman Empire and Greece to help the sick and injured soldiers. Permission was granted by the Ottoman government on April 25th. Thereupon, Swiss, Swedish-Norwegian, English, French, Belgium, German and Austrian Red Cross Societies presented their assistance proposals to the Sublime Porte.⁵³

At the beginning of May, the Russian Red Cross sent a mobile hospital of 500 beds with full surgical equipment to Pharsala. A medical team of five physicians, 10 nun-nurses and two male caregivers provided significant health services in this region until June 5th.⁵⁴

Furthermore, it was learnt that another Russian mobile hospital was sent by the Grand Duchess Elizabeth which would arrive at the region around the middle of May. The Russian medical team came to Pharsala on 16 May 1897. The team

consisted of two physicians, three medical students and 12 nurses. This team started its duties by establishing a hospital of 25 beds in Pharsala. However, soon after the battle started in Domoko, everywhere was full of injured soldiers and the Russian Field Hospital of 25 beds had to treat more than 150 injured and sick soldiers.⁵⁵

The Swiss Red Cross also provided health assistance to the Ottoman soldiers. The Society sent a mobile hospital with eight physicians, a pharmacist, an administrator and a caregiver to Thessaloniki, provided that all of the costs and expenses would be on its account. This hospital served until the end of the war.⁵⁶ Moreover, the German Red Cross also sent a team to Istanbul.⁵⁷

It is known that besides the Red Cross Societies, some important persons also came to the Ottoman lands for health assistance. In a letter sent to the Chief of Staff it was stated that General Kolon, President of Sweden-Norway Health Affairs, would come to Istanbul to examine sick and injured soldiers and to provide health assistance and would go to Thessaly from there, and it was asked that everything necessary be done to provide convenience to him during his visit.⁵⁸

In a letter sent from the Ministry of Foreign Affairs to the Ministry of Internal Affairs on 24 April 1897, it was stated that Donovlar, a German military physician, left for Ellasona to provide medical services to Ottoman soldiers. Again, it was ordered that all necessary help be given to him.⁵⁹

DISEASES

While efforts were being made to treat the war injuries, epidemic diseases were seen in some hospitals and health personnel endeavoured to stop the dissemination of these diseases with the help of precautions taken based on medical information of the era. For instance, after the medical team of the Ottoman Bank working in Larissa reported that there was a serious risk of tetanus in their hospital, the hospital administration gave importance to sterilisation and after-surgery care. Taking into account the sterilisation formula of Germany, the usage of tincture diode and phenol in wound dressing

was begun and tools were sterilised after usage. Therefore, infections after surgery were minimised and the risk of tetanus was decreased. Furthermore, Dr. Lardy reported that the injured brought to the hospitals in Larissa could not receive the service of wound dressing for three-four days and that cases of septicaemia and gangrene were frequently seen.⁶⁰

In a letter sent to Ethem Pasha, it was reported that some of the soldiers in hospitals suffered from gangrene in their feet. These patients had not been treated and it was asked that necessary precautions be taken to prevent this disease.⁶¹ Thereupon, letters were sent to all of the hospitals and precautions to eliminate this disease were initiated.

In a letter written by the Corps Commander Halil Fehmi, it was reported that typhoid fever was seen in Domoko Hospital, that patients were treated under quarantine there and that those who recovered would be transferred with patients sent for transfer to another climate for medical reasons.⁶²

The medical team of the Ottoman Bank saw pneumonia cases in the hospital in Tirnovos.⁶³ On April 23rd, there were 1.895 patients in total, 800 of which were injured in the Ioannina and Ellasona armies.⁶⁴ It was argued that the medical condition of the Ioannina army was better compared to the condition of the Thessaly army during the war.⁶⁵ Since the general environment of Loros was not so good, many deaths were seen in detachments there after July, 1897. For this reason, the units in the 2nd division in Loros with the highest amount of sick soldiers were exchanged with the units positioned around with better climate. At the end of the war, it was officially recorded that the sickness rate in the Ioannina army was 2%; whereas, the death rate was one in 4000.⁶⁶

In spite of the fact that epidemic diseases did not pose a significant threat during the war, this condition changed after the war. In those days epidemic diseases caused mass death due to the absence of an organisation to fight contagious diseases and epidemics and the ignorance of physicians. The epidemics were first seen towards the end of June

and caused the death of many soldiers. Malaria and typhoid fever were the most frequently seen diseases that caused most of the losses.⁶⁷ It is argued that typhus fever, malaria, typhoid fever and dysentery epidemics caused the death of many physicians and around 30.000 soldiers in Thessaly.⁶⁸ On June 28th, four big units of the hospital in Larissa were full with the sick. Physician-in-Chief of the Army Ahmet Hilmi Pasha visited the hospital and ordered that dysentery and cholera patients follow a special diet.⁶⁹ Venereal diseases were rarely seen in the Ottoman army.⁷⁰

In accordance with the report of the Chief of Staff dated 14 November 1897, in six days -from November 6th to November 11th-723 sick soldiers were admitted to the hospitals in Ioannina and its vicinity and 580 of them died.⁷¹

According to Dr. Lardy, within 6 months following June, approximately 15000 people were lost due to various diseases. This number is 20% of the total sum. The most important reason underlying the outbreak and the dissemination of the epidemics after the war was lack of hygiene. During the war, maximum efforts were successfully made to ensure the hygiene of the soldiers, barracks and the hospitals. Especially in Thessaly, with the efforts of Bonkowski Pasha, contamination of water resources was prevented and necessary care was given to water supplies. Therefore, no serious problems arose with regards to hygiene during the war. However, this condition changed after the war; hygiene was widely ignored, and religious officers had the dead buried in a disorderly fashion. It was understood that especially in Pharsala and Domoko, the dead were buried near or sometimes within water sources, which caused the contamination of water sources becoming the main source of epidemics.⁷² Another reason underlying the epidemic diseases was that soldiers were sent to their hometowns without taking preventive measures based on bacteriological rules. After the war ended, the soldiers were sent to Istanbul, Gallipoli and Dardanelles with ships leased by the Ottoman Red Crescent without any bacteriological precautions. These soldiers, who carried the diseases, caused epidemics.⁷³

WAR SURGERY

Throughout the war, the most important surgeons of the era from the Imperial Medical Society, Haydarpaşa Hospital, Naval Hospital, Zeytinburnu Military Hospital and Humbarahane Hospital in Istanbul were sent to various fronts. These surgeons performed successfully many difficult operations under trying conditions.⁷⁴

According to Lardy, information and practice in war surgery was scarcely sufficient in both Europe and in the Ottoman Empire in 1897. Many deaths were reported due to bullet, shell and cannon injuries. Causes of death were determined as encephalitis, peritoneal inflammation, chest (23%), abdomen (85%) and cranial (29%) injuries and poisonous gangrene. Based on the information given by Lardy, death due to abdomen injuries was frequently seen.

The most frequently seen surgeries with the least success rate in war surgery were surgeries performed due to injuries on the hand and foot. Loss of the injured in cases where medical treatment was delayed was occasional. Sometimes, in these cases, deaths were due to infections after surgery.⁷⁵ The injured who needed to undergo serious operations were sent to the Yildiz Military Hospital in Istanbul. There, the radiographies taken by Dr. Salih Bey went down in the history of radiology as the first systematic diagnostic cases in military surgery. The radiographies conducted by Dr. Salih were the first systematic applications,⁷⁶ which were followed by those taken by the physicians of the German Red Cross in the Yildiz Military Hospital and by the physicians of the English, French and Russian Red Cross Societies Red Cross in Athens.⁷⁷

Bone fractures were usually left to heal by themselves without any medical treatment. In cases when an organ needed to be fixed, fractures were treated with the application of splint, brace or cast. Chloroform was only used in important surgeries. Effects of the lack of sterilisation devices were felt throughout the war. According to Lardy, pressurised *autoclave* was used for sterilisation due to its practicability, since it could be operated very fast in spite of the fact that it was heavy. This

device could be heated with oil, alcohol or even wood. Steam flow sterilisation devices or well known devices like Lautenschlager were not preferred since they caused excessive waste of time. In case a sterilisation device could not be found, the tools used were boiled in water with 1% phenol.⁷⁸

OTHER PROBLEMS

It is seen that various problems were observed in some hospitals during the war and that they were reported. Larissa Hospital was one of them. It was evident that some organisational issues were seen in the hospital and the patients were kept waiting for a long time for the procedures in the hospital. Accordingly, it was reported that incoming patients were kept longer than they should have been in quarantine wards before they were examined and, as a result, a significant amount of laundry had to be done. As a solution, it was ordered that since the dirty clothes gathered had the risk of disseminating epidemics, a laundry near the hospital should be established and wage-earning female workers should be hired to do the laundry. Within 15 days upon execution of this order, it was seen that Larissa Hospital became a hospital with the same standards of Haydarpaşa Hospital and that all kinds of cleaning problems were solved.⁷⁹

In a telegram sent to the Chief of Staff, it was indicated that the patients in Larissa Hospital were not properly taken care of and that the health personnel were not attentive to what the patients ate and drank. Therefore a complaint was raised against them that they breached their duties.⁸⁰ As a result of the necessary proceedings, it was understood that the complaint was in fact not baseless and the problems in the hospital were eliminated within 50 days.⁸¹

One of the problems encountered during the war was related to the passage of Red Cross ships carrying the injured. Accordingly, after Preveza was captured by the Ottoman army, the German Red Cross decided to send a team to rescue the injured Greek soldiers confined there. It was notified that the team would embark upon a Greek vessel with the Red Cross flag that would leave Korfu to help these injured soldiers and that they

intended to enter Preveza Bay to take the soldiers. Necessary permission was requested from the Ottoman government. The Ottoman authorities expressed their concern that such an act of assistance in accordance with the Geneva Convention and for totally humanitarian purposes might cause the escape of Greek warships stuck in the bay. For this reason, the passage of the said ship was permitted on 8 May 1897 on condition that she would not carry a Greek flag, but a Red Cross and a German flag and that she would not draw close to other ships at the bay.⁸²

TRANSFER OF SOLDIERS FROM THE FRONT

At the end of the war, transfers from the front were made via land route and sea lane. Above all else, military physicians on the battle field were replaced with the physicians of the 3rd Army. The soldiers were transferred to Istanbul, Gallipoli and Dardanelles via land route and sea lane.⁸³ In accordance with a telegram sent by the Chief of Staff to the Ioannina Army Corps on 11 June 1897, it was decided that injured soldiers to be transferred to Istanbul after the war should be sent via sea lane from Volo and Preveza. Furthermore, it was requested that the soldiers who had already left both Larissa and Ioannina for Thessaloniki be kept waiting in Thessaloniki before being transported via ships for counting purposes and that their numbers be separately recorded.⁸⁴ It was further decided that the sick and injured in Bitola should be sent to their hometowns via sea lane from Preveza.⁸⁵

Railways were used for land route transportation; whereas, ships leased by the Red Crescent Society called *Roma*, *Van*, *Asir*, *Mekke* and *Taif* were used.⁸⁶ It was ordered that each of the transferred soldiers be paid double salary until he arrived at his hometown and that transfers would be made accompanied by an officer and a health officer.⁸⁷

It was recorded that after the armistice, 1,699 injured and 29,328 weakened privates were sent from Larissa to Volo by trains. Then they were transferred to their hometowns via ships of the Red Crescent.⁸⁸

It is understood that some organisational difficulties were faced during the discharge procedure. For instance, it was reported that significant numbers of discharged soldiers who were sent from Larissa and Domoko to Pharsala suffered major problems mainly from congestion and hygiene concerns. Accordingly, everyday 150-200 newly discharged soldiers arrived at Pharsala from Larissa to be sent to their detachments. Nevertheless, these soldiers could not be transferred to their detachments due to the weakness they suffered and also due to insufficient transportation means. On the other hand, in spite of the fact that soldiers sent from Domoko brought pack animals and their food supplies with them, the officers could only transfer them gradually to other places. With the problem of finding appropriate accommodation for the soldiers already transferred -for new soldiers continuously kept coming from Larissa and Domoko- the issue of congestion increased even more and, understandably, brought the problem of hygiene with it. The greatest danger posed by lack of proper cleaning was the possibility that epidemics might arise and spread rapidly among the soldiers who were already weak. In accordance with a document in the archives of the Chief of Staff, the possibility of the emergence of another epidemic besides typhoid fever, which continued to be seen as an epidemic in this region, posed a highly serious threat. Upon the increase of this threat, it was requested from the Commandership of Pharsala on September 28, 1897 that transfers be stopped and that the soldiers be sent to another clean location with appropriate climate. During this period, the municipality, with the single car that could be allocated, tried to remove the dirt on the streets in order to keep the city and the surrounding area clean.⁸⁹

Some defects were seen during the disinfection procedure on the trains used for transfers. Proper cleaning and disinfection were especially important during the transfer of the sick to prevent the spread of epidemics. In a telegram received on June 28, the central commission in Sirkeci gave notice that a train that arrived at Istanbul with the injured, which, as a rule, should have been disinfected as soon as it arrived, was disinfected in the

afternoon of the next day. As far as is understood from the report, the disinfection undertaken was, in fact, not in accordance with the law, because the disinfection should have been made immediately after the sick got off the train. Thereafter, the personnel were asked to initiate measures to ensure that all discharging and cleaning procedures were carried out in accordance with the rules and on time.⁹⁰

Soldiers transferred to Istanbul via railway got off the train at the Sirkeci Station and then were sent to their hometowns by the commission set up there. Some of the trains carried the sick and the injured. Successive trains carrying hundreds of sick, injured and discharged soldiers accumulated in Sirkeci Station and people coming to the station to meet them caused congestion. The Chief of Staff sent a letter to the Eastern Railway Company and requested that appropriate precautions be taken to prevent congestion when the trains arrived at Sirkeci Station. In the said letter it was asked that necessary arrangements be made on the arrival hours of the trains in order to prevent accumulation of the public at the station when the trains arrived and, thus, avoid any possible accidents.⁹¹

CONCLUSION

The Ottoman Empire was devoid of a strong organisation that could manage the health services in this period, which hindered proper provision of such services. In the army reform initiated in 1883 by experts who had come from Germany upon the request of the Chief of Staff, matters like army health or field health services were of secondary importance. During the Greco-Ottoman War of 1897, the deficiencies in the medical organisation and services of the army became evident. Most of the plans made during the mobilisation period could not be fully implemented due to the shortage of medical staff, hospital or medical equipment or problems experienced in organisations. This caused the Chief of Staff to handle this situation after the war, initiating new reforms to improve the military health organisation.

Apart from these deficiencies in the military area, there was no civil organisation in the Otto-

man Empire that could conduct health services both in war and peace time either. The Ottoman Red Crescent Society existed merely on paper. The Society, which became active for the first time during the Russo-Ottoman War of 1877-78, ended its activities at the end of this war. The Greco-Ottoman War of 1897 caused the Ottoman Red Crescent to restart its activities. The efforts made during the war, though limited, nationwide aid campaigns launched and joint works carried out with the teams of foreign Red Cross Societies from various countries caused the Society to gain significant experience in its phase of establishment.

In 1897, medical knowledge was limited. Information and practise on war surgery were insufficient both in Europe and in the Ottoman Empire. Information available on military medicine and war surgery usually did not go beyond theories. It was widely known that most of the physicians had difficulties in treating severely injured soldiers on the battle field. It was officially recorded that many soldiers were lost due to lack of or delayed surgical operations after the war broke out. On the other hand, it is a fact that in spite of limited medical information and materials and under trying conditions at the fronts, surgeons showed the courage to perform some very difficult operations in this war and were successful. The Greco-Ottoman War of 1897 is the first war during which radiographies of systematic military diagnostic cases were taken in both fronts after the discovery of the X-ray. During the war, patients who needed to undergo significant surgeries were transferred to the Yildiz Military Hospital in Istanbul. There, the radiographies taken by Dr. Salih went down in the history of radiology as the first systematic diagnostic cases in military surgery, which were followed by those taken by the physicians of the German Red Cross in Yildiz Military Hospital and by the physicians of the English Red Cross in Athens. During this war, both the Ottoman physicians and foreign physicians who came with the Red Cross teams gained significant experience in the field of surgery.

Defects in medical information were also existent in the area of bacteriology. The physicians, apart from their duties in their divisions and hospi-

tals, could not be proven efficient in their struggle against the epidemics since they had no proper education or knowledge for being organised to struggle against contagious diseases and epidemics. Defects in medical information was one of the major reasons why the epidemics that emerged, especially after the war, spread fast and caused great losses. On the other hand, transferring the soldiers to their hometowns after the war without taking

the preventive bacteriological measures enlarged the dissemination area of the epidemics. Ignorance and negligence in hygiene was also an important factor in the emergence and spread of diseases.

Acknowledgment

I'm grateful to my colleagues, Dr. Elçin Macar for Greek translation and Cem İbrahim Fırat for French translation.

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