

Wartime infections and tragedies at the beginning of the 20th century in the Eastern part of Turkey

Ergenekon Karagöz¹, Vedat Turhan¹, Mustafa Hatipoğlu¹,
Bulent Ozkuzugudenli²

¹Department of Infectious Diseases and Clinical Microbiology, GATA HEH Training Hospital, Istanbul, Turkey;

²Institute for Turkish Studies, Marmara University, Istanbul, Turkey

SUMMARY

In the early 20th century, Europe and the Ottoman Empire as a whole experienced a large number of epidemic diseases, and several wars. During World War I (WW1) a general mobilization of the medical services under Ottoman Empire rule was enacted. However, shortages of food and water, unfavourable weather and poor sanitary conditions resulted in numerous diseases at the battle fronts. Indeed, during the Ottoman-Russian war

on the Eastern Front, the Turks suffered massive loss of life. This article therefore emphasises that during WW1, such loss of life in the Ottoman Army on the Eastern Front, which was one of the key fronts of the war, was mainly due to epidemic diseases rather than battles.

Keywords: World War I, Ottoman Empire, epidemic diseases.

In the late 19th and early 20th century, Europe and the Ottoman Empire experienced a high number of epidemic diseases, and several wars. While many people were diagnosed with cholera in Europe, millions of people died from influenza and death rates from epidemic diseases reached 50 million around the globe. During World War I (WW1) a general mobilization of the medical services under the Ottoman Empirical rule was enacted. Yet, shortages of food and water, unfavorable weather and poor sanitary conditions resulted in numerous diseases at the battle fronts. Typhus, recurrent fever, typhoid fever, cholera, dysentery, smallpox, malaria, plague, influenza, skin diseases and tetanus were all common infectious diseases. In fact, during the Ottoman-Russian war on the Eastern Front, the Turks suffered massive losses of lives and, in particular, 600,000 Turkish soldiers died from typhus [1].

This article therefore stresses that during WW1, massive losses of lives in the Ottoman Army on the Eastern Front, which was one of the key fronts of the war, were mainly due to epidemic diseases rather than battles. Consequently, epidemic diseases should be regarded as the real cause of death & victor of WW1.

In the winter of 1914-1915, typhus, also known as "spotted fever", spread across Anatolia. Telegraphs, sent to the Russian staff at the time, highlighted that on the Caucasian Front 17,000 of the 150,000 Turkish soldiers and 40 doctors had died of typhoid fever and similar epidemic diseases [2]. Poor living conditions during the war affected many nationalities. The Kaspiy newspaper on 3rd of July 1915 described the living conditions during the war around various regions in Turkey. Large numbers of refugees were in need of food, clothing and medical treatment in the region of Van [2]. Also, many people in this region died as victims of various diseases, while 500 people in Ercis died from typhus and typhoid fever. On 15th of March 1916, more than 800 Armenians were deported from Halep [3]. Three months later,

Corresponding author

Ergenekon Karagöz

E-mail: ergenekonkaragoz@hotmail.com

further deaths occurred as a result of exhaustion, hunger, dysentery, and epidemics such as typhoid during the deportation [3]. Individuals diagnosed with typhus and typhoid diseases were deported to quarantine in order to obtain appropriate medical treatment. During deportation, the Ottoman Empire distributed technical manuals to minimize the losses of lives [4]. Thus allegations made about genocide can be seen as irrelevant.

The Medical Corp of the Ottoman 3rd Army was taken over by Prof. Dr. Tevfik Sağlam, who later became a full professor and started working for the Ministry of Health. Despite harsh war conditions, he managed to register and control patient information. His meticulousness as a physician was evident in his laboratory.

By 1915, nine stationary and many mobile hospitals had been founded under Dr Sağlam's leadership and 295 doctors were working in these hospitals. Within the same year, 70 of the listed doctors were affected by various diseases, the most common being typhus. Between March 1915 and February 1916, 23,601 soldiers lost their lives due to the spread of epidemic diseases. Dr Erdem and his colleague recorded only 530 deaths from the battlefield [5]. In other words, the number of soldiers who died of epidemic diseases on the Ottoman Eastern front (3rd Army quarter) during the initial stages of WW1 was 10 times greater than those directly linked to fighting.

In 1915, deaths among the 3rd Army soldiers were mainly due to typhus, dysentery, relapsing fever, typhoid fever and pneumonia.

Malaria, despite often being present, caused only 2.5% of fatalities in that period, due to the knowledge of quinine. During WW1 a quarter of the Ottoman army of 1.5 million, almost 400,000 soldiers died as a result of epidemic diseases. Throughout the four years of war the number of soldiers who died of infection was 7 times higher (59.462) than that of soldiers who died from wounds.

To prevent diseases that spread through lice and cause the skin to peel off (typhus and borreliosis), an effective disinfection method was needed, but the conditions of war and famine were not conducive to distributing mobile disinfectant units to various military units. It was not until the invention of the vapor box that infectious diseases like epidemic typhus and relapsing fever which were ravaging whole battalions were finally controlled.

This invention was critical and responsible for saving countless lives. Dr. Ahmet Fikri's vapor box consisted of a box and a vessel. The vessel was a large tub used to cook food in the kitchen. A pierced wooden box, the size of the vessel's mouth, was put upside down on top of it. Pieces of felt were stuck in between the vessel and box to prevent steam from escaping. The vessel was filled with water and placed on a fire. Clothes and garments were placed on a grid inside the box. Steam would evaporate in between the box and boiler, and after half an hour the clothes were taken out. The disinfection process was completed and the lice were destroyed [6-9].

In the winter of 1914-1915, epidemic typhus was at its deadliest but with the proliferation of the field disinfectant method it started to decrease considerably from 1917 [9, 10].

According to a study conducted by Dr. Hikmet Özdemir in the United Kingdom, Switzerland and Turkey during WW1, infectious diseases, typhoid fever in particular, caused a significant number of deaths among civilians and those who lived in war zones [11]. However, the real reason for the high numbers of casualties among the Ottoman army was not conflict, but the typhus epidemic that started in the war zone, especially in the East Anatolian towns and spread with unexpected alacrity. According to the records of a military hospital from East Anatolia, a total of 183,000 soldiers - 116,000 soldiers from the Ottoman 3rd Army, and 67,000 from the 2nd Army - died of infectious diseases. The number of soldiers who died from infectious diseases on the Ottoman Syrian front under the command of Cemal Pasha was recorded as 65,000. These numbers are based on the military hospital records, however the deaths that occurred elsewhere, among those that never reached the hospital and among soldiers who had deserted remain unknown. For this reason it is believed that the real death toll was much higher [11].

The struggle for survival of the Ottoman State, its people and in particular the 3rd Army during WW1, can be seen in the following examples. The severe weather conditions and lack of adequate shelter were repeatedly the main reasons for the rapid spread of cholera, epidemic typhus, dysentery, and even influenza among the civil and military populations resulting in numerous deaths. For example, in 1918, an influenza epidemic,

which started on the barricades of the French-German border, quickly spread across the whole continent and caused the death of hundreds of thousands of people [11, 12].

Similarly, in winter 1914, while forcing the Russian armies to retreat during the Sarıkamış Operation, thousands of Ottoman soldiers from the 3rd Army lost their lives, without firing a shot, by either freezing to death due to the extreme cold weather, or from high fever due to epidemic typhus [13].

In 1914 a virulent typhus epidemic broke out in Erzurum and Harput on the Russian border of Eastern Anatolia soon after military operations had begun. There were also outbreaks of typhus in Mardin, Van, and Bitlis. The number of deaths caused by typhus in Erzurum amongst civilians and soldiers during December, was about 400. All the bureaucrats in the city caught cholera and with the exception of the District's Chief Pharmacist, the Public Plaintiff's Assistant, The Investigating Judge, The District Governor and The District Revenue Officer, they all lost their lives to it [14]. The 3rd Army's Armenian minority was misled by the imperialistic states of the West and Russia. They hoped to defy the Ottoman State that had maintained peace and union for several hundred years, and provoke the Armenian minority to revolt against it, and to attack both the civilian population and soldiers [15, 16].

The Ottoman state used the same tactic of mass deportations that Russia was using and found it effective. The Armenians were forcefully taken from where they were and moved to locations where the Ottoman government thought they would be safer. Before deportation the Armenians had caught infectious diseases like typhus, dysentery and cholera during the Van rebellion in the summer of 1915. During deportation, on March 16th (1915), according to a record in a deportation camp, thousands of people died of typhus in two months. It is also known that 100,000 Armenians who were brought to Aleppo either caught an infectious disease or starved to death. [17, 18]. The American-Armenian report dated 1918 also reflects the fatal truth about the typhus epidemics of 1915 and the number of deaths caused by it. In Anatolia, in 1915, the number of people who died of typhus was between 200,000 and 300,000. Most of the doctors sent by the Ottoman government to deal with the matter caught the infection as well and the majority of them died. According to

one report, 60,000-100,000 people lost their lives from typhus in the region of Erzurum alone [19]. During the beginning of WW1 (1914), when the Ottoman Army was heavily exposed to infectious diseases a total of 2,555 doctors - 1,202 active and 1,353 back-up - were on duty. Thirteen percent of them lost their lives during the war mainly due to epidemics.

Writers like Joseph Pomiankowsky acknowledged that not only Armenians, but also the entire Ottoman population were seriously affected at this time by these epidemics. Pomiankowsky states that the typhus epidemic killed at least one million Muslim citizens [20].

In his work "Exile or Death", Justin McCarthy highlights the tragedy that the entire population of the Ottoman Empire, both Muslim and Christian alike, endured during the First World War, in a similar way to earlier reports. Things went according to plan for only a tiny proportion of Muslim and Armenian deportees that had set out from Eastern Anatolia and the Caucasus. It can be assumed that these people were in a worse situation than those that had become deportees in Western Anatolia or in Europe around the same time [21, 22]. Throughout the First World War there were no camps in East Anatolia to accommodate the Muslim deportees. The "Ottoman State Commission for Migrants" did everything in its power to provide help and protection to the deportees, yet, the State was not in a position to provide relief to the million migrants present in the country as it was unable to provide adequate food, security and medical treatment to its own soldiers [23].

Deaths from epidemic diseases during the First World War and in its immediate aftermath accounted for a significant part of the civilian and military losses that occurred in the Ottoman region. While the population of the United Kingdom and Germany increased between the years of 1911 and 1922 and that of France decreased by merely 1 percent, the population of Anatolia decreased by 30%. Ten percent of the population emigrated and 20% perished. People from various religious and ethnic backgrounds all suffered during the First World War and a massive number of deaths occurred due to unfavorable health conditions [24]. Outbreaks of infectious diseases, especially in combat situations, have also led to serious disasters in different regions of the world. For ex-

ample, Black Death, or Bubonic Plague, ravaged Europe during the very complex “Hundred Years War (1337-1453)”, fought between France and England with the occasional intervention of other countries. The plague was transmitted primarily by fleas carried on rats. *Yersinia pestis* swept across the continent, killing one third of the European population (about 20 million people) by 1351. This microorganism is thought to have been endemic among rodent populations in Asia which were brought to Europe on ships, and transferred to humans in Europe with great virulence. The onset of the disease was sudden; the symptoms of fever were: weakness, delirium, lung distress, and dark-colored swellings (buboes) in the neck, armpit and groin areas. Usually, those infected died within 1-2 days, including those who were young and previously healthy [25]. The examples above highlight the suffering and devastation experienced by both sides during the war, and the extent to which infectious diseases and epidemics wreaked havoc and caused suffering on an epic scale. In order for these past events not to happen again and for lessons to be learned, there is a need for more scientific studies, which offer an objective and rigorous analysis of what happened in the past and the impacts of contagious diseases on the army and the population as a whole.

Conflict of interest. The authors have no conflicts of interest to disclose.

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