

## Military medicine in Mexico in 1915

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### Abstract

As a part of the symposium titled "Mexico in 1915, Epidemics, Hunger, and Medical Assistance," presented at the National Academy of Medicine on August 5, 2015, this section will underscore the most important and transcendent facts inherent to the military medicine and surgery that happened during the turmoil of the year 1915. (Gac Med Mex. 2016;152:240-4)

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### Introduction

1915 was one of the bloodiest years of the armed struggle during the Mexican Revolution; the purpose of this manuscript is to highlight some events in the Mexican medical-military history that, owing to their characteristics, with the passage of time, turned out to be of particular significance.

### Background

To contextualize 1915 medical-military events, it is essential to refer some precedents; we will start by mentioning that, ever since the Porfirista Army was formed, there was already a medical-military body available, which was perfectly established and organized based on the needs of the country in times of peace in the late 19<sup>th</sup> and early 20<sup>th</sup> century.

In 1881, at the dawn of the Porfiriato, the Military Medicine Practical School was born, thanks to the

intense and efficient work of Colonel Francisco Montes de Oca y Saucedo, Doctor of Medicine (MD), who, by orders of General Porfirio Díaz, had taken care of the military medical corps reorganization<sup>1</sup>, emphasizing on the need of having a special school available for the training of Army surgeons. The Military Medicine Practical School was opened on January 15, 1881, and from that moment on, the Army surgeon posts were occupied exclusively by students graduated at this institution<sup>2</sup>.

This school was the immediate predecessor of the current Military Medical School; therefore, it is important to highlight that in the records of the federal military medical corps staff members in 1914, Sub-Lieutenants Zózimo Pérez Castañeda and Jesús Sánchez Guzmán appear as student aspirants of the Military Medicine Practical School at the Instruction Military Hospital, who are the only members of the first generation graduated from the Constitutionalist Military Medicine School in June 1917<sup>3</sup>, a fact that confirms the existing link between both the practical and the constitutionalist military medical schools.

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Similarly, it is also worth highlighting that in February 1913, the state of force of the Federal Army healthcare service was comprised by doctors and students at the following proportions<sup>4</sup>: as doctors, 4 brigadier generals, 8 colonels, 32 lieutenant colonels and 84 majors, and 50 aspirant lieutenants of the Military Medicine Practical School, in addition to 10 odontologists, 18 pharmacists and 32 veterinarians. A total of 128 physicians and 50 students! If we compare the figures of the 1910 and 2010 population censuses<sup>5</sup>, we can observe that the country's population is currently 10-fold higher, but, curiously enough, the proportion between active members of the military medical corps and the general population remains constant, i.e., even then there was an appropriate amount of elements to cover, at least in theory and in times of peace, the service requirements.

In addition, it's important to highlight that, as a result of the armed struggle, different humanitarian assistance institutions were created. I will mention the most important: the Mexican Red Cross, founded by Presidential Decree number 401 dated on February 21, 1910, issued by General Porfirio Díaz Mori, immediately prior to the beginning of the Revolution<sup>6</sup>, the Neutral White Cross, the Constitutionalist White Cross, also known as Blue Cross, the Maderista Army Three-colored Cross and Dr. Daniel Zertuche's Black Cross, among others.

Finally, in 1916, once the Constitutionalist Army was consolidated, the Military Healthcare Service adopted the Three-colored Cross as its emblem, in remembrance of the taking of Ciudad Juárez and, obviously, because it had the national colors<sup>7</sup>.

Of all the above mentioned crosses, the only ones that remain active to the present day are the Mexican Red Cross, the Neutral White Cross and, of course, the Three-colored Cross of our Military Healthcare Service.

It is very important to highlight as well that, on April 15, 1912, Dr. Guadalupe Gracia-García Cumplido and Major Guillermo Cerqueda MD conceived and implemented the first medical convoy ever recorded in world's history; it was, certainly, a contribution of Mexico to the world. In 1915, all revolutionary armies of Mexico, except for the Zapatistas, had hospital trains. Similarly, in 1915, the European nations involved in World War I, especially Germany, started to adopt the concept and had their own hospital trains<sup>8</sup>.

The most important consequence was a survival increase for injured combatants by substantially reducing the time elapsed between the lesion and early and definitive surgical management of their wounds. This

was very important, since until the first decade of the 20<sup>th</sup> century, mortality by abdominal trauma secondary to wounds by firearm projectile was practically 100%<sup>9</sup>.

Early in the armed phase of the Mexican Revolution, each one of the leaders of the different belligerent factions understood the importance of having an efficient medical care service, and all of them surrounded themselves of loyal and well trained MDs, who organized the care of the wounded in the best way possible within the natural existing limitations.

As previously mentioned, the Federal Army had an organized Military Medical Care Service available. Venustiano Carranza's medical service was organized by two Military Medicine Practical School graduates, Majors Ricardo Suárez Gamboa, MD, and Jesús Alemán Pérez, MD. In turn, Álvaro Obregón was assisted by two graduates of the same Military Medicine Practical School, Colonel Andrés G. Castro, MD, and Lieutenant Colonel Enrique C. Osornio, MD. Emiliano Zapata had Colonel Alfredo Cuarón, MD, also graduated at the same institution, in charge of his troops' medical care<sup>10</sup>.

On the other hand, there were civilian doctors who were granted military ranks and who were responsible for medical services; for example, General Pablo González put the medical care service of his North-eastern Army in charge of Colonels Luis G. Cervantes, MD, and Ignacio Sánchez Neira, MD, none of whom had been military doctors before the Revolution. Similarly, Pancho Villa had two colonel MDs as healthcare heads of the North Division, doctors Andrés Villarreal and Miguel Silva<sup>11</sup>.

### **1915, the Bajío campaigns, Constitutionalist versus Villistas**

Victoriano Huerta's defeat was officially sealed with the signature, on August 13, 1914, of the Teoloyucan Treaties, where unconditional surrender of the Federal Army and its suppression by the victorious Constitutionalist Army was contemplated. This did not only mean the cessation of hostilities on Mexican ground, but also caused for the rupture between Carranza on one side, and Villa and Zapata on the other to become deeper. Few days later, the struggle between leaders begun and, in an attempt to reach a consensus, they convened the Aguascalientes Revolutionary Convention in October and November 1914<sup>12</sup>.

The convention failed in its attempt to unify the revolutionary forces, which brought as a consequence the confrontation between Villistas and Carrancistas in the battlefield, basically during the first half of 1915.



**Figure 1.** Lieutenant Colonel Enrique C. Osornio, MD, holding General Obregón amputated limb (©Archivo fotográfico de la Comisión de Estudios Históricos de la Escuela Médico Militar).

The battles of Celaya (the first one took place on April 5 to 7 and the second, from April 13 to 15, 1915) were the biggest in all Latin America, given the large amounts of combatants involved and fatal victims estimated figures; total casualties exceeded 19,000 losses, but casualties were much higher on the Villista side<sup>13</sup>. It was a terrifying fratricide slaughter, during which medical services of both sides did a great and outstanding work, and, as an important consequence, professionalization of the military physician was produced by the end of the armed struggle.

This severe defeat of Pancho Villa in April 1915 did not mean the cessation of hostilities, and on June 3, 1915, one of the most important events for the future of the medical military corps took place during these Bajío campaigns between constitutionalists, commanded by General Álvaro Obregón, and the North Division, led by General Francisco Villa. At the Santa Ana del Conde Hacienda, very close to the city of León, Álvaro Obregón was making a field recognition when he was reached by a piece of shrapnel that amputated the lower third of his right arm. Convinced that he was mortally wounded, Obregón took his gun with the left hand and tried to take his own life but, fortunately, he was saved because the gun had no projectiles in the chamber. Immediately, his assistants snatched the gun and Colonel Jorge Blum, MD, of the Murguía Division arrived at that very moment and applied a tourniquet to the bleeding stump as a heroic hemostatic measure and brought the wounded General to the hacienda house. Later, Obregón was carried on a cot, for more



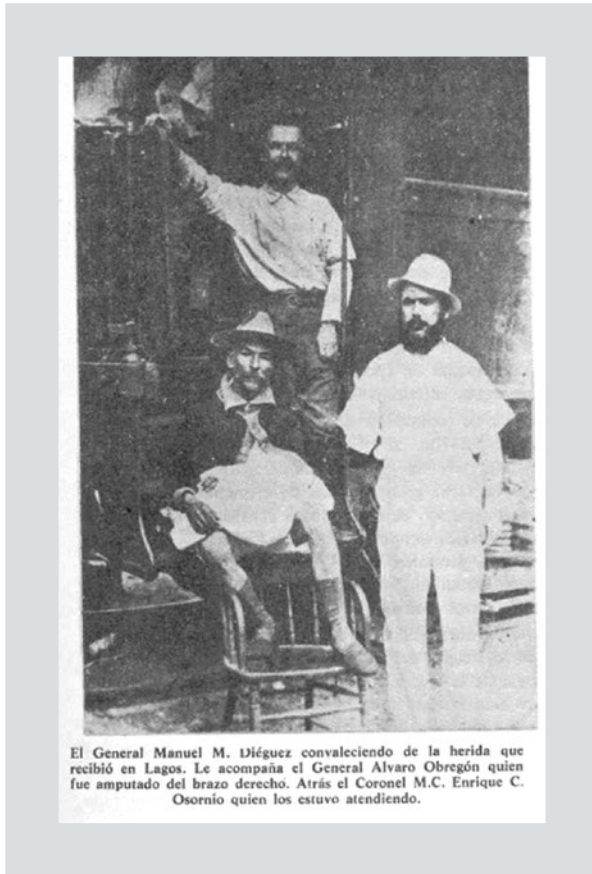
**Figure 2.** Lieutenant Colonels Osornio, Castro and Zendejas, MDs, and Dr. Gracia-García (surgeon) operating, at Encarnación, General Diéguez, who had been wounded on the left forearm at Lagos de Moreno, Jalisco, on June 30, 1915 (©Archivo fotográfico de la Comisión de Estudios Históricos de la Escuela Médico Militar).

than 10 km, under the sun and enemy fire, until the Trinidad railroad station. On his way he was reached by Lieutenant Colonel Enrique Cornelio Osorio, MD, who administered him a narcotic. The patient was brought to the operating wagon, where he was surgically intervened; remodeling of the stump was performed, with Lieutenant Colonel Senorino Zendejas, MD, acting as surgeon, and Lieutenant Colonels Heriberto Alcázar, MD, and Enrique C. Osornio, MD, General Obregón personal physician, as assistants. Colonel Andrés G. Castro, MD, administered the anesthesia and, subsequently, the patient was carried to the "Siquisiva" wagon, where he spent his convalescence; his postoperative evolution had the entire nation in suspense<sup>14</sup> (Fig. 1).

Approximately one month later, on June 30, 1915, at Encarnación, Jalisco, it was General Manuel M. Diéguez turn to be wounded, with a comminuted fracture of the left forearm. The order to take care of him was received by Dr. Osornio, who instructed Colonel Andrés Castro, MD, to prepare everything for amputation; he recommended Dr. Gracia-García for the operation, who, instead of amputating, practiced a conservative surgical procedure, thanks to which, General Diéguez preserved his limb with some trophic sequels in the fingers<sup>15</sup> (Fig. 2).

Subsequently, both generals convalesced together in one of the hospital train wagons under the care of Lieutenant Colonel Enrique C. Osornio, MD (Fig. 3).

The Bajío campaigns culminated with the defeat of Pancho Villa and his North Division, which from that moment started to disintegrate until its complete extinction; victory



El General Manuel M. Diéguez convalesciendo de la herida que recibió en Lagos. Le acompaña el General Álvaro Obregón quien fue amputado del brazo derecho. Atrás el Coronel M.C. Enrique C. Osornio quien los estuvo atendiendo.

**Figure 3.** General Manuel M. Diéguez convalescing of a wound sustained at Lagos de Moreno, Jalisco, together with General Álvaro Obregón, who had the right arm amputated, and, behind, Colonel Enrique C. Osornio, MD, who took care of them (©Archivo fotográfico de la Comisión de Estudios Históricos de la Escuela Médico Militar).

was for the constitutionalist group of Carranza and Obregón, at the command of the Northeastern Army, which, in the last troops inspection on July 14, 1916, reported the following status of forces for the medical care service with the personnel that took part in the campaigns against the Villistas in 1915: 14 expeditionary MDs, 13 hospital military MDs, 23 hospital regional MDs, 31 hospital civilian physicians, 10 accredited physicians, 5 veterinarians, 6 pharmacists, 3 dentists, 14 physician's assistants, 37 male nurses, 48 female nurses, 28 escorts and ambulant elements and 200 troop elements, for a total of 432 elements<sup>16</sup>.

I consider that the two previously referred life and limb-preserving war surgeries positively influenced on the revolutionary command for the subsequent approval of the project to create the Military Medical School. The project was enriched with Gracia-García multiple experiences in the revolution battlefields, which were captured at the moment the future Military Medical School was conceived.



**Figure 4.** Opening of the Constitutionalist Military Medical School on October 12, 1916 (©Archivo fotográfico de la Comisión de Estudios Históricos de la Escuela Médico Militar).

Once the Villista movement was defeated, Carranza, as the person in charge of the Nation's Executive Power, focused on the reconstruction of the country's social fabric. A very important event for the Military Medical Care Service was the presentation, both to Carranza and Obregón, of the project to create the Constitutionalist Military Medical School.

The project was in charge of Dr. Guadalupe Gracia-García Cumplido, who was granted with the Colonel MD rank on July 1, 1916, together with the appointment as director of the Instruction Military Hospital and the mission of reorganizing the old application school known as Military Medicine Practical School, which he was not satisfied with; therefore, he undertook the task of gathering six distinguished revolutionary physicians in order to shape the project for the creation of a comprehensive training school for future Army MDs, the Military Medical School. These doctors were Colonels Andrés G. Castro, Adolfo Orive Campuzano, José de Jesús Sánchez Gómez and Eduardo Fritsch Gutiérrez, and Lieutenant Colonels Cleofás Padilla Silva and Samuel M. Salazar Angulo.

Finally, the project was approved by the superiority, and thus the Military Medical School was born, as a legitimate product of the Mexican Revolution. It was symbolically opened on October 12, 1916 (Fig. 4), initially with the name of Constitutionalist Military Medical School, and officially started its functions on March 15, 1917<sup>17</sup>. After Carranza's death and up to date its name is Military Medical School. It was located at the same facilities of the former Military Medicine Practical School, within the Instruction Military School, at the

Cacahuatal Street. In this school, the students will be trained for six years and will graduate as Major MDs with the obligation to lend their services to the Army for twice the time the duration of their studies<sup>18</sup>.

The Constitutionalist Military Medical School was the first educational institution of the country created by Venustiano Carranza's regime; with this, the particular interest the revolutionary forces had on having professional military doctors and adequate training remained clear.

## Final considerations

It is important to highlight that, halfway through the terrible year of 1915, the country already had spent more than two years of combats between Huertistas, Villistas, Zapatistas and Constitutionlists, and this had brought as a consequence for the country, and especially for its capital city, epidemics (typhus, malaria, infectious gastroenterocolitis, etc.), lack of water, both for human and animal consumption and to preserve an adequate hygiene, famine due to the shortage of food and an important deficit on its production and distribution, proliferation of robbery, murder, unemployment, "rampant" insecurity, absence of established governments with the capacity to confront and solve problems, lack of economic resources and supplies, food and medications, which, even having the money, could not be acquired due to their inexistence. Of course, all this had a major impact on the country's public health and, together with the multiple victims fallen on campaign, mortality as a consequence of the Mexican Revolution reached figures, according to different authors, estimated in between 1.5 and 2 million on that second decade of the 20<sup>th</sup> century<sup>19</sup>.

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