

## The Other Front of the Hispanic-American Independence The Battle for Health and Hygiene

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### Abstract

*General José de San Martín began his career in the Spanish Army and suffered diverse injuries and illnesses both there as well as in the South American campaigns. We prepared a chronological order of his multiple illnesses - some of doubtful origin - trying to understand how a sick man could have crossed the Andes to fight battles in Chile and to finally triumph over the Spaniards with the surrender of their army in Peru. The illnesses of this Spanish American general and the health and hygiene of his army were decisive to the destiny of almost half a continent.*

### The Illnesses of General José de San Martín

José Francisco de San Martín (1778-1850), the Liberator of the southern countries of South America, was born in Yapeyú, in the Spanish Viceroyalty of the Río de la Plata, on 25 February 1778. He travelled to Spain, and at the age of twelve was admitted into the Regiment of Murcia. He fought in the Battles of Melilla, Orán, Arjonilla, Bailén, and Albuera. His ship was seized by the English and it was probably there that he learnt of the liberation movements inspired by Masonic groups. Back in the regiment of Cádiz, San Martín joined *Los caballeros racionales de Lautaro* lodge and had contacts with the *Semanario Patriótico* newspaper.

The manuscripts in the Baldrich family collection covering the Spanish American campaign and our research on José de San Martín's health led to a review of his bibliography, so as to establish a chronology of his illnesses in a period when these could determine the course of wars.

1801: Wound in thorax and hand. As a soldier in Spain, he was injured while carrying objects of value (3,300 *reales*) on horseback from Valladolid to Salamanca.

1803: Sabre wound on the left arm in the Battle of Albuera.

1808: Gout, hyperuricaemia (high levels of uric acid in the blood) and arthritis. According to our records he suffered episodes in 1817, 1818, 1841. For his arthritis he would take baths in the Tunuyán River and at the hot springs of

Cauquenes in Chile, a treatment recommended by Dr Colisberry. There were also signs of arthropathy (arthritis) in the right arm and fingers; in the daguerreotype published by *The Mosquito* newspaper there were signs of advanced arthropathy in the fingers of his right hand.

1808: Asthma. The first signs were recorded in 1808. In 1814 he suffered another crisis in Mendoza and was attended by a Peruvian doctor, Juan Isidro Zapata. According to Olazábal, when San Martín arrived at the Portillo pass in the Andes in 1823, he complained of feeling exhausted.

1809: Haemoptisis (coughing up blood). Most historians discarded this and maintained that they were the symptoms of haematemesis (bleeding from the mouth).

1813: Luxation of the shoulder, face wound and crushing of the leg, when he returned to the Río de la Plata in 1812, and trained a cavalry regiment (Granaderos a Caballo). His first battle against the Spaniards was when he concealed his soldiers behind the San Lorenzo Monastery, where the Spanish usually stayed to rest, and he was able to take them in a surprise attack. The strategy was successful, but San Martín's horse suffered a fall which injured his leg. Doctor Francisco Cosme Argerich attended him.

1814: Haematemesis. According to Martín de Pueyrredon, the army's diet was based on coffee, chilli, *charqui* (dehydrated salted meat), onion, and the traditional alcoholic beverage known as *aguardiente*. (2) This symptom could

have indicated a chronic duodenal ulcer. The pain was episodic. He was treated with opium and developed an addiction to this drug. There is evidence that he used it in 1816, 1821, 1832, 1833, 1834, 1840, 1841, 1844, and 1847. Gailatoire put forward another diagnosis, tuberculosis, but this was discarded as there was neither fever, nor weight loss, nor any expectoration.

1816: Angina, according to the edict drawn up by Governor Toribio de Luzuriaga.

1817: Essential tremor. There are multiple sources which confirm that San Martín wrote with difficulty and that he needed the help of a secretary or scribe. The soldier Zenteno recorded the military orders that were later signed by San Martín. San Martín suffered from arthropathy of his right wrist, which could have been gout and essential tremor. It is not clear if San Martín actually wrote or was assisted by Zenteno to write out the orders. In a letter from J. M. de Pueyrredón to San Martín the former says that 'the day before yesterday I received your last letter written by a scribe due to the weakness of your pulse.' From a comparative analysis of both documents signed by San Martín, it is obvious that the text belonged to the same handwriting as that of a secretary named Zenteno, although later they were signed by San Martín himself. There is a letter from Manuel Belgrano to San Martín recommending 'galvanism', a treatment using a galvanic machine. He described the new treatment as electricity generated by a dynamo and applied to the trembling region on the body.

1819: Haemorrhoids and anal fistula. This information was obtained from a letter to Tomás Guido.

1820: Dysentery. During the Chilean campaign there was an epidemic of dysentery which caused the death of San Martín's friend Antonio Alvarez Jonte, member of the government of the Río de la Plata in 1812.

1821: Malaria (also known then as the 'Valley of Huaura's disease', misnamed 'Yellow Fever' although San Martín and his soldiers were in contact with the '*Aedes Aegypti*' mosquito. It started suddenly after the onset of dysentery. There were 1,500 independent cases, and

amongst the Spanish soldiers 3,000 fell ill. This epidemic and the famine of the Spanish royal army became a strategic reason for their surrender, making it easier to conquer Lima, the main city of the Viceroyalty of Peru. Differential diagnosis: salmonellosis. Furthermore, during San Martín's return from Peru, and whilst he was living at Bernardo O'Higgins's house near Santiago de Chile he suffered a bout of exanthemata typhus. This is caused by fleas from rats, but there are no other references to identify this cause and no mention of the pathognomonic rash. It could have also been *Chavalongo*, a regional folkloric name (from *chavo*: sleepy and *louco*: head) for an unknown chronic disease, characterised by prolonged fever and a bowel-colonic process. Differential diagnosis: typhoid fever.

1826: Erysipelas. 'Since the last time I wrote to you I have been suffering from illness and anguish: whilst I was on my way to a friend's country home the carriage tipped over and I dislocated my right arm developing an erysipelas from which I have not yet fully recovered' (San Martín to Manuel de Estrada).

1832: Cholera. San Martín had enemies in Buenos Aires, so he had to abandon the United Provinces of the Río de la Plata and was exiled in Europe during an epidemic of cholera there (1831 to 1837). He and his daughter showed signs and symptoms of this disease, and were helped by Mariano Balcarce (son of General Balcarce) who came over from London. Differential diagnosis: a cholera frusta form (a choleric gastroenteropathic infection from *Salmonella typhus*.)

1833: Epilepsy: referred to in a statement by Manuel Ricardo Trelles, which states that San Martín suffered a seizure in the presence of Posadas whilst they were travelling from Paris to Rome to purchase a sculpture of Napoleon. It was also mentioned in a letter from San Martín to Bernardo O'Higgins. There were other seizures during 1836 and 1848.

1840: Influenza.

1845: Cataracts: Dr Sichel was the ophthalmologist who performed surgery on San Martín in 1849 in Paris, without anaesthesia. There was no improvement.

1850: Death. Causes unknown (may have been ulcer complications, cancer, heart failure or aneurism).

### **Health and Hygiene in the Army of the Andes**

During the South American Wars of Independence José de San Martín faced serious sanitary and health problems in his Army of the Andes. Manuscripts shed light on the diseases suffered by the troops during the different campaigns, and the hygienic and medical measures implemented by San Martín's doctors, amongst them Juan Green and Patricio O'Donnell. Bernardo O'Higgins also played an important role in these historical events and in the prevention of illnesses.

In 1816 San Martín was in Mendoza, a city in the Cuyo region of the United Provinces of the Río de la Plata, organising an army for the independence campaign. The discovery of a document about the dermatological venereal diseases of the troops that was signed by San Martín in 1816 led to an exploration of the historical context and the circumstances of that period. The document, the existence of which was known, has not as yet been completely researched and/or interpreted:

*Having positively confirmed that the diseases generally affecting the troops are the result of venereal ailments, following the doctor's advice I have decided to set up a consulting room in every quarter which will be used provisionally as a hospital or nursery, in which those suffering from the most common galic symptoms, such as 'vubones,' gonorrhoea and others that for their nature do not require surgery, neither do they require difficult nor prolonged assistance. In order to do so, you will prepare this consulting room under your mandate with the knowledge that the government will appoint a doctor to assist you using the drugs available at the army's apothecary for which the administrator or person in charge has already received the appropriate orders, as has the President Priest of the General Hospital not to admit patients with these types of diseases as from the 20th of this month, unless they require major assistance or are affected by other diseases. May God protect you for many years. Mendoza, March 12th, 1816 (José de San Martín to Pedro Regalado de la Plaza). (3)*

This document proves that consulting rooms were created in regimental quarters which served as anti-venereal hospitals, and that Dr Pedro Regalado de la Plaza, General Commander of Artillery had been appointed to assist San Martín. It also confirms the existence of dispensaries and apothecaries and proves the existence of the Director and President Fray Pablo de Rosario at the general and military Bethlemitic Hospital of San Antonio in Mendoza. The patients were admitted to the hospitals depending on the complexity of the treatment.

Another document confirms that Fray Luis Beltrán, a priest, was appointed Lieutenant General of Artillery and Chaplain of the Army. Finally, a third document in the collection signed by Bernardo O'Higgins is not related to health and sanitation, but important to the historical context.

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### **The historic context regarding these documents: Diseases and Hygiene**

During the colonial period of the Viceroyalty of the Río de la Plata, the science and art of healing was regulated by the Protomedicato. After 1810 it was replaced by the Medical Military Institute, which regulated the education of doctors during this transitional period.

When José de San Martín replaced Manuel Belgrano in the Northern Army at Tucumán, he requested doctors from Buenos Aires: Cosme Argerich, Guillermo Colisberry from Philadelphia, and English-born Diego Paroissien. General Belgrano, leader of the Northern Army, had his own doctor, Joseph Thomas Readhead. When the Spanish Royalist soldiers were in need of a doctor in Salta, Readhead was kidnapped but was able to escape and rejoined the Northern Army.

José de San Martín, Governor of the Cuyo region, was charged with the organisation of military health and hygiene for the civilian population as well as for the troops. He established military hospitals in the cities of Mendoza and San Juan, the general and military Hospital of Mendoza and the Bethlemitic Hospital of San Antonio, which was located near the Zanjón canal (in the intersection of present-day San Luis and Francisco de la Reta streets of San Juan). There was another hospital in San Juan, the Bethlemitic Hospital San Juan de Dios. The Bethlehem priests, who supported independence, acted as nurses and doctors. Not only did they cater for the hospitals but also offered their help on special missions and in military matters. After Fray Pablo del Rosario, Fray Juan Pedro de Santa María became Director of the Bethlemitic Hospital of Mendoza. He studied medicine and, as a surgeon, accompanied the Independence Army of the Andes in 1817.

In 1815, San Martín began to supervise the financial administration of the hospitals, establishing control committees known as Juntas Hospitalarias, which had already been created in other regions but had never been implemented in Cuyo.

When learning that doctors in Mendoza were pro-royalist, San Martín requested more doctors from Buenos Aires, and only put his trust in Juan Isidro Zapata, a doctor from Perú. He implemented physical examinations for soldiers entering the army. Those who fell into any of the following categories were denied entry:

- Those without teeth
- Those with fistulas
- The elderly with disabilities

- Men with amputations
- Young men who showed adjustment problems
- Those with tuberculosis
- Those with sanguine (bloody) expectoration

The diseases suffered by the troops during the campaigns were:

- Wounds by sabres or fire arms
- Fractures and luxations
- Burns from canon shots
- Surumpi, an ophthalmologic condition due to the sun's reflection on the snow-covered surfaces of mountains, which can cause blindness for two days
- Soroche, or altitude sickness, with headaches
- Tuberculosis
- Malaria
- Venereal Diseases

Regarding the prevention of venereal diseases San Martín established anti-venereal consulting rooms in the artillery quarters and also in the quarters of Cavalry Regiment, the Regimiento de Granaderos a Caballo.

He also worked on the prevention of these diseases, voicing his concern to other authorities in the army, as well as in Chile. In a letter from Bernardo O'Higgins to San Martín, the Chilean general wrote:

*... in the meantime I am working on the construction of a camp by the river Lircay which is a league away from this city and is without any doubt one of the best military positions available in this area. The construction is moving forward and in exactly two days the entire army will be camping out there. In this way we will avoid all contact with the local civilian population who unfortunately suffer from venereal ailments ...*

In order to avoid frost-bite, San Martín requested large boots to be sent from Córdoba to Mendoza. He ordered felt to be inserted as lining in the boots.

Hydrophobia (rabies) was brought into the territory at the time of the English Invasions of 1806 and 1807. In order to control the risk of contagion, he ordered that all rabid dogs be killed (La Abeja Argentina, 15 May 1822).

After the Battle of Chacabuco Guillermo Dunyer and David Noel joined the forces, as well as Patricio O'Donnell and Juan Green. The

latter became O'Higgins's personal doctor. Green saved O'Higgins's arm by performing a bleeding after the battle of Cancha Rayada.

Fray Juan Pedro de la Santa Cruz returned to Mendoza and worked independently, as a doctor, in the San Antonio Bethlehemite Hospital of Mendoza. He was an excellent director of that institution.

Manuel Belgrano was assisted by his personal physician, Joseph Readhead, to whom he gave his golden watch as payment and gratitude before his death. Readhead also performed Belgrano's autopsy.

Bernardo O'Higgins died in Peru. It seems that he had always been treated by Dr Juan Green, as has been pointed out by Antonio Guerrino (based on Vicuña Mackenna's information). Guerrino put an end to uncertainty regarding the name of O'Higgins' doctor.

### **Conclusion**

In 1814, when José de San Martín organised an army for his campaign of independence, he faced serious sanitary and health problems, both in his army and in respect of his own health. Keeping so many soldiers under military discipline required having an organised medical infrastructure. Thus, there were two fronts in the South American wars of independence. In addition to the military one, there was another front which was fought within the medical field. The fate of Chile, Bolivia, Paraguay, Colombia, Peru, Ecuador, Venezuela, Uruguay and Argentina was not only decided by military strategy but also by the hygiene and health of the army and its leader.

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### **Notes**

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2. *Aguardiente*, eau-de-vie, coarse kind of brandy obtained by fermentation and distillation of sugared musts.
3. *The documentary source belongs to the Baldrich family collection of American Manuscripts.*

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