

## CULTURE AND MEDICINE

# Precursors of Modern Surgery in the Province of Villa Clara

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## ABSTRACT

**Introduction:** in the history of Public Health in Villa Clara, several doctors who dedicated themselves to General Surgery at the end of the 19th century and the beginning of the 20th century stand out; With their effort, they introduced the modern advances that were already being achieved in the world in this specialty, paving the way for its application in practice, transforming the specialty and giving way to what has been called the stage of modern surgery.

**Objective:** to highlight the main figures of General Surgery who in different Villa Clara institutions introduced the modern advances of the specialty.

**Method:** a historical documentary research was carried out in which some aspects of important figures in this field were addressed; the most outstanding specialists were identified in each institution.

**Conclusions:** the development of Medical Sciences in the territory determined the emergence of outstanding professionals in Surgery and the Municipalities of Remedios, Sagua la Grande and Santa Clara were the pioneers of modern Surgery.

**Key words:** history; general surgery; modern advances; predecessors

## RESUMEN

**Introducción:** en la historia de la Salud Pública villaclareña se destacan varios médicos que se dedicaron a la Cirugía general a finales del siglo XIX y principios del XX; con su esfuerzo introdujeron los adelantos modernos que ya se lograban en el mundo en esta especialidad, abrieron el camino para su aplicación en la práctica, transformaron la especialidad y dieron paso a lo que se ha llamado la etapa de la Cirugía moderna.

**Objetivo:** destacar a las principales figuras de la Cirugía general que en diferentes instituciones villaclareñas introdujeron los adelantos modernos de la especialidad.

**Método:** se realizó una investigación documental de corte histórico en la que se abordaron algunos aspectos de importantes figuras de este campo; en cada institución se identificaron los más destacados especialistas.

**Conclusiones:** el desarrollo de las Ciencias Médicas en el territorio determinó el surgimiento de destacados profesionales de la Cirugía y fueron los Municipios de Remedios, Sagua la Grande y Santa Clara los pioneros de la Cirugía moderna.

**Palabras clave:** historia; cirugía general; adelantos modernos; precursores

## INTRODUCTION

This work is part of a research about the development of Public Health in the current Villa Clara Province (former Las Villas Province) that is currently being carried out and in which a group of figures of the Medical Sciences of the territory have been identified, who made important contributions to society, not only in the scientific but also in the social field, and who have left an important historical legacy. Particularly in this case, emphasis has been placed on the identification of the most important figures of the Specialty of General Surgery and the contributions they made to the development of modern surgery in the province.

## METHODS

A historical documentary research was carried out during 2019 in which theoretical methods were used to carry out an objective analysis based on the adequate interaction of the historical and the logical, and from the temporal and spatial dimensions, in order to know the background of the development of Public Health in Villa Clara Province and to identify a group of doctors who worked professionally, with deep scientific quality, in the Specialty of General Surgery and who were able to introduce the scientific advances that allowed the development of modern Surgery in the province.

As an empirical method, a documentary analysis was carried out in the Provincial Historical Archive which included documents related to the foundation and development of the City of Santa Clara and other municipalities of the province and files on cultural, charitable and scientific associations. Numerous documents were reviewed in the rare collections of the "Martí" Library of Santa Clara City and an extensive historical bibliography related to the personalities that were identified in the field of Medical Sciences and, especially, in the Specialty of General Surgery.

## DEVELOPMENT

The history of Surgery as a medical specialty had a path full of contradictions and conceptions: it was initially considered as a profession separate from Medicine and then it was integrated into the field of Medical Sciences. It was not until the end of the 19th century that Surgery became a medical specialty and became a recognized clinical practice. It was not until the beginning of the 20th century that Surgical Specialists began to be considered as having reached the status of true professionals, until then their field of action had been considered very limited.<sup>(1)</sup>

For the development of the so-called modern surgery, it was necessary to have four prerequisites:<sup>(1)</sup>

1. Development of Anatomy (Andres Vesalius, 1514-1564)
2. Control of hemorrhage (Ambrose Paré, 1510-1590)
3. Discovery of anesthesia (William T.G. Burton, 1819-1868)
4. Application of antisepsis in the surgical practice (Joseph Lister, 1827-1912).

The transition to modernity in this medical specialty did not take place until the end of the 19th century. During those years, Cuba was undergoing the Wars of Independence against Spanish colonialism, which maintained strict restrictions on the introduction of scientific advances in the country.

In the period between the two Wars of Independence (1879-1894), a development of Medical Sciences took place in Cuba that was unrelated to the colonial health system, which neither took care of it nor supported it. It was mainly due to the return to Cuba of a large number of professionals from Europe and North America who introduced the known scientific advances, including those related to Surgery, but the concepts of sepsis and antisepsis took a few years to be introduced in Cuba, which marked the beginning of the so-called period of modernity of this specialty. It was precisely at the end of the 19th century that outstanding figures of Surgery in Cuba emerged, but all of them had to face a very high mortality rate due to tetanus, gangrene and peritonitis. A work presented by Doctor Avelino Barreras at the I Regional Medical Congress of the island of Cuba in 1890 expresses, on this subject:<sup>(2)</sup>

..."Up to this date, 74 major operations on the abdomen have been performed, distributed as follows: Cabrera seven (two deaths), Plasencia 19 (seven deaths), Menocal 11 (three deaths), Casuso 32 (16 deaths), Horstmann one (one death), Ramirez Tovar one (cured) and Barrena three (two deaths). Total 31 unfortunate cases. Mortality reached almost 40%"...

The advances that took place in Europe and the United States found an echo in Cuba, and Villa Clara was no stranger to this phenomenon that developed at the end of the 19th century. Outstanding professionals who had emigrated brought their experiences to the territory and, together with figures who practiced surgery in the three existing hospitals, laid the foundations for the development of the specialty and some of them even achieved national prestige and left an important legacy for the current generations of surgeons.

The report submitted by Rafael Tristá Valdés to the First Conference of Beneficence and Correction, held in 1902, shows early on the performance of surgical activities at the end of the 19th century, with no reported cases of tetanus, something very frequent at that time and which reflects that asepsis measures were already being taken in the territory.<sup>(3)</sup>

Historian Martínez-Fortún y Foyo mentions that Emilio Núñez de Villavicencio, when publishing a work in the Journal of Medicine and Surgery in 1905, mentions Nicolás Alberdi y Golzari in Santa Clara, Antonio Bustillo Lirola and Enrique Yañiz Martínez in Sagua la Grande and Salvador Raymat Sánchez, Pelayo Peláez Laredo and Domingo Lagomasino Álvarez in Remedios as initiators of this activity in the territory. He specifies that gastrointestinal operations, ectopic pregnancies and other surgical interventions were already systematically performed.<sup>(4)</sup>

But these were not the only figures who contributed to the development of modern surgery in the province. Other professionals who contributed to the development of the specialty have been identified, such as Pedro Albarrán Domínguez, Nicolás Alberdi Golzari, Domingo Lagomasino Álvarez, José Manuel Núñez Rodríguez, Agustín Abril y Letamendis, Antonio Bustillo Lirola, Enrique Yañiz Martínez, Arturo Ledón Pairol, Rafael Tristá Valdés, Joaquín Ruiz Mesa, Olivio Lubián Morell, Joaquín Tristá Pérez and others.<sup>(4,5)</sup>

In Remedios, Domingo Lagomasino Álvarez, born in Sancti Spíritus, settled in 1884 and worked there for 25 years. He achieved a great reputation, was a professor of physiology and hygiene at the Secondary School of that town and director of the Remedios Hospital and, professionally, he was an outstanding surgeon who performed complex operations when modern advances did not exist. In 1909, he went to live in Havana, where he died on May 25, 1929. Doctor José A. Martínez-Fortún y Foyo in his book "La Medicina en Remedios y su Jurisdicción" (Medicine in Remedios and its Jurisdiction) reflects:<sup>(5)</sup>

..."From that date on, a great advance in medicine began with the introduction of asepsis and antisepsis in surgical interventions. A group of young people enthusiastic about their profession contributed to generalize this practice among their clientele, who formed a "petit comité" and were able to successfully practice the first womb surgeries performed in the jurisdiction"... Along with Doctors Lagomasino and Pelayo Peláez, other outstanding professionals were José Manuel Núñez Rodríguez and Agustín Abril y Letamendis.

José Manuel Núñez Rodríguez, a native of Sagua la Grande, graduated in Medicine in Seville and in 1882 he revalidated his degree at the University of Havana. He worked in the Amaro area until he took up residence in Remedios. He was subdelegate of medicine between 1887 and 1888 and a skilled surgeon who cured several cases of diphtheria by practicing tracheotomy and performed the first ovariectomy operation in Remedios. In this municipality he was surprised by the War of 95 and escaped to the United States. He joined the liberating army in January 1897 as Chief of Health of the Expedition Corps with the rank of Captain and participated in several expeditions until his definitive return to Cuba in 1898. He finished the war with the rank of Colonel. He established his residence in Remedios and there he remained linked to the profession, although he also dedicated himself to politics and business.<sup>(5)</sup>

Agustín Abril y Letamendis settled in Camajuaní in 1889 and became a municipal doctor in 1890. In the political order he developed his pro-independence ideas together with Leoncio Vidal Caro in the Sociedad El Liceo de Camajuaní. Later he traveled to Europe to perfect his studies and upon his return he settled in Sagua la Grande, where he collaborated in 1892, together with Antonio Bustillo Lirola, another outstanding surgeon, in the magazine Archivos de la Policlínica. He practiced for many years in Sagua la Grande, a place where he gained a high prestige and high consideration.<sup>(5)</sup>

Doctor Pelayo Peláez Laredo, in 1895, was a pharmacist in Encrucijada, where he conspired with Doctor Juan Bruno Zayas Alfonso and during the war he obtained the rank of Colonel. He went to study in the United States, graduated as a doctor, acquired important knowledge about the latest advances in surgery and, upon his arrival in Cuba, settled in Remedios. In that city, and together with Doctor Lagomasino, he developed an important activity; the practical skills acquired for years by Doctor Lagomasino were combined with the modern knowledge that Doctor Peláez brought from the United States. Doctor Salvador Raymat Sánchez was not really a surgeon, but he practiced anesthesia, and he was an outstanding collaborator of these surgeons.<sup>(5)</sup>

Sagua la Grande was influenced by prestigious physicians such as Pedro Albarrán Domínguez and Nicolás Alberdi Golzari, who left an important legacy. The work developed by Doctor Pedro Albarrán Domínguez in Sagua la Grande,

and even in Santa Clara, where he also developed some activities, is little recognized in the reviewed bibliography; however, the author has found evidence that shows that between 1890 and 1899 this outstanding professional worked in this territory and left an important legacy for the development of surgery. He represented Sagua in the First Regional Medical Congress of the Island of Cuba, held in Havana in 1890, along with two other professionals. Historian Martínez Fortún y Foyo, in his *Cronología Médica Cubana*, locates him working in Sagua la Grande in 1894 along with 9 other physicians, among them Joaquín Planas y Prieto, Francisco Rodríguez Mesa and Agustín Wenceslao Reyes Zamora. In the journal "El Tiempo", in an extraordinary issue published in Sagua la Grande in 1925, where several biographies of scientific, social and political personalities of the municipality are collected, when referring to Dr. Agustín Wenceslao Reyes Zamora it was expressed:<sup>(6,7)</sup>

..."This doctor was, together with Pedro Albarrán and others, one of those who went to study in France and returned to Sagua la Grande"...

This professional actually practiced in San Diego del Valle, Santa Clara and Sagua la Grande.

Doctor Nicolás Alberdi Golzari joined to his prestige as a mambí his great gifts as a surgeon. At the end of the war he went to Europe to improve his knowledge and got in touch with the new advances in surgery and the concepts of asepsis. After a year working in hospitals in Paris, he returned to Sagua la Grande; he was appointed, in 1900, director of the old "San José" Hospital, where he excelled as a surgeon. His performance was the initial factor for the development of modern surgery in Villa Clara because he also practiced in Santa Clara when he was appointed Chief of Health and as surgeon of the "San Juan de Dios" Hospital and as president of the Medical Pharmaceutical Dental Corps.

These two relevant figures in Sagua la Grande, Alberdi and Albarrán, were joined by other outstanding professionals such as Francisco Rodríguez Hernández, known as the doctor of the poor, Antonio Bustillo Lirola, who died early in 1911 and who had specialized in Surgery, Gynecology and Obstetrics in New York and Enrique Yañiz Martínez, an outstanding patriot who was also an important surgeon.<sup>(8,9)</sup>

Doctor Joaquín Ruiz Mesa, an outstanding surgeon at the beginning of the 20th century, developed all his work in Santa Clara until his retirement and, nevertheless, he is very little recognized nowadays in spite of having become a Corresponding Member of the Academy of Medical, Physical and Natural Sciences of Havana. On the occasion of the 50th Anniversary of the foundation of the Dental Pharmaceutical Medical Corps, in 1942, he presented a paper published later on in the Villa Clara Médica Journal, in which he expressed:<sup>(10)</sup>

..."Aseptic surgery began to emerge in our city, the evolution was remarkable, surgery in Cuba was already beginning to grow, masters in that difficult art were emerging in Havana. As novelty always attracts, at that time the successes in surgery converted many internists to their creed and it was not possible that Villa Clara could remain behind in that new advance of progress. Ledón initiated surgery in Santa Clara; he was not in my opinion a true surgeon, but an internist, a great clinician who performed operations"...

In addition to this reference to Arturo Ledón Pairol, he says about Alberdi:<sup>(10)</sup>

...“In these years, a man whose great prestige as a liberator kept him away from the profession arose; and who was returning from his further studies in Paris, with new techniques, educated in asepsis. He came with great enthusiasm, with great love for the profession, with a desire to practice it. He had consecrated himself as a surgeon on the battlefields in the hospitals of the manigua. Nicolás Alberdi joined to his conditions of surgeon his authority of liberator, and who contributed a lot to educate our people in the need of hospital assistance. In those years he performed a wide variety of interventions, perhaps many of them, the first to be performed in our environment and that the non-existence of hospital statistics prevents us from mentioning”...

Dr. Ruiz Mesa was joined by Dr. Olivio Lubián Morell, two professionals who gave continuity to the work of the initiators, together with whom they worked for several years; they established close ties with institutions in the capital, with whom they exchanged experiences and in which they performed joint surgical interventions that allowed them to consolidate their knowledge of the specialty.

Joaquín Ruiz Mesa was born in Santa Clara on September 14, 1885, studied medicine and graduated in 1904. He settled in Santa Clara and was appointed municipal physician. He also worked at the “San Juan de Dios” Hospital and at the Colonia Española sanatorium. For 21 years he developed an outstanding work as a surgeon together with Olivio Lubián Morell and Joaquín Tristán Pérez. He founded, together with them, the first private clinic dedicated to surgery in Santa Clara in 1919. Due to his outstanding work as a surgeon, he was elected as the first president of the Society of Medicine and Surgery of Santa Clara, a position he held for several years.<sup>(11)</sup>

After some years of work in Havana and Cienfuegos, without ever abandoning his work as a surgeon, he returned to Santa Clara in 1933 and continued his outstanding medical and scientific work. He was, according to his friend and colleague, Dr. Aurelio Hernández de la Barca, an innovator, because he applied and developed early the use of blood transfusion, he was one of the first to introduce appendicular surgery as a medical-surgical emergency and he transformed the conservative surgery criteria that prevailed in those times.<sup>(11)</sup>

Due to his outstanding work, he became a full member of the Cuban Society of Surgery and a member of the Academy of Medical, Physical and Natural Sciences of Havana. Around 1957, when he reached more than 50 years of professional practice, he retired. After the revolutionary triumph, he donated his private practice on Lorda Street to the “Hurtado de Mendoza” School. He became ill in the 60's with a pancreatic cancer that he diagnosed himself and died in Santa Clara on January 2, 1970.<sup>(12)</sup>

Olivio Lubián Morell was born in Santa Clara, he studied medicine and graduated in 1908, after a brilliant internship in surgery at the “Reina Mercedes” Hospital in Havana he received the “Méndez Capote” award, which consisted of a modern surgical instrument. Upon his arrival in Santa Clara he joined Dr. Joaquín Ruiz Mesa and together they revolutionized the work of the specialty through fruitful exchanges with the main hospitals of the capital; they founded a private clinic and introduced in Santa Clara all the surgical techniques of the time.<sup>(13,14)</sup>

He occupied, for several years, the direction of the Hospital "San Juan de Dios" and to his efforts and those of Doctor Joaquín Ruiz Mesa is due that, in 1925, this center was endowed with a modern surgical unit. He was an outstanding member of the Medical Pharmaceutical Dental Corps, a society that he presided over in 1922, and of the Society of Medicine and Surgery of Santa Clara, of which he was one of the founders and an important promoter of its creation. In the scientific field, his most important work was the creation of the Revista Villa Clara Médica, of which he was the first director. This eminent surgeon, after a long professional and scientific career, died in Santa Clara on August 27, 1958.

These were, in brief synthesis, the main figures who contributed to the development of Modern Surgery in Villa Clara at the end of the 19th century and the beginning of the 20th century. They, together with other outstanding professionals of the Medical Sciences created, in 1935, the Society of Medicine and Surgery, an important scientific grouping, which joined the Medical Pharmaceutical Dental Corps, founded in 1892, to take the reins of the scientific development in the province.

## CONCLUSIONS

The development of Medical Sciences in the current territory of Villa Clara Province until the first years of the 20th century determined the emergence of outstanding professionals in Surgery who left an important legacy for future generations. The municipalities of Remedios, Sagua la Grande and Santa Clara were the pioneers of modern surgery in this territory; in Santa Clara this specialty achieved its greatest development and consolidation.

## BIBLIOGRAPHIC REFERENCES

1. Courtney M, Townsend JR, Beauchamp D, Evers M. Sabiston Tratado de Cirugía, fundamentos biológicos de la práctica quirúrgica moderna. 20a ed. España: Elsevier España, S.L.U; 2013.
2. Anuario Médico Social de Cuba. Historia de la medicina y la cirugía en Cuba. Revista Cubana de Oftalmología. La Habana. 1938. p.41.
3. Tristá Valdés R. Dispensario para niños pobres "El Amparo". Ponencia presentada en la Primera Conferencia de Beneficencia y Corrección. La Habana: Librería, papelería e imprenta La Moderna Poesía; 1902.
4. Martínez-Fortún y Foyo JA. Cronología Médica Cubana, contribución al estudio de la historia de la medicina en Cuba. Caibarién: Editorial Eudaldo Valdés e hijos; 1947.
5. Martínez-Fortún y Foyo JA. La Medicina en Remedios y su Jurisdicción. Remedios: Tipografía La Popular; 1939. p.18.
6. Revista El Tiempo. Número Especial. Sagua la Grande: Editorial Echemendía y hermanos; 1925.
7. Alcover Beltrán AM. Historia de la Villa de Sagua la Grande y su jurisdicción. Sagua la Grande: Imprentas Unidas La Historia y El Correo Español; 1905.
8. Rodríguez Expósito C. Índice de médicos, dentistas, farmacéuticos y estudiantes en la guerra de los diez años. Cuad Hist Salud Pública. 1968;(40):485-486.
9. Escalante Colás A, Jiménez González A, Gómez Balboa F. Diccionario Enciclopédico de Historia Militar Cubana. Primera parte (1510-1898). Tomo I Biografías. La Habana: Ediciones Verde Olivo; 2004. p. 383.

10. Ruiz Mesa J. Historia de la cirugía. Cirugía moderna. Su práctica y progresos en Villa Clara. Revista Villa Clara Médica. 1943;XI(2):43-54.
11. Hernández de la Barca A. Discurso en homenaje a Joaquín Ruiz Mesa, pronunciado el 23 de febrero de 1940. Revista Villa Clara Médica. 1940;VIII(3):111-114.
12. Ruiz Hernández JR. Entrevista realizada a Vivián Lubián Ruiz, nieta del doctor Joaquín Ruiz Mesa. Santa Clara; 02/08/2019.
13. Ruiz Hernández JR. Entrevista realizada a la destacada intelectual villaclareña Marta Josefina Anido Lubián. Santa Clara; 03/14/2019.
14. Lubián Morell O. Reseña histórica del Cuerpo Médico Farmacéutico y del dispensario "El Amparo". Santa Clara: Impresos Quiñones; 1922.

## CONFLICT OF INTERESTC

The authors declare that they have no conflict of interest.