MANUEL CORACHÁN I GARCÍA CORACHÁN GASTROPEXY

The eponym

Corachán gastropexy. Gastropexy is the surgical correction of gastroptosis by attaching the stomach to the abdominal wall, diaphragm, or liver¹. Corachán gastropexy is a modification of Lambret technique in which, instead of using the aponeurotic band to suspend the stomach, two thick silk threads are entwined into a cord and fastened to the left costal arch and to the suspensory ligament of the liver².



Manuel Corachán i García (1881-1942)

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Manuel Corachán i García was born in the Valencian town of Xiva de Bunyol on 2 November 1881. His father worked as a surgeon and barber —more the latter than the former according to Marí i Balcells^{3,4}. His mother, María García Hernán, died prematurely when Corachán was only six⁵. Shortly after her death, Corachán went to live with his uncle and aunt in Barcelona, where he began secondary school in 1893 and medical school six years later⁵. Corachán always considered himself "Valencian by birth, Barcelonian by heart and by adoption, yet irrevocably Valencian"⁶. Given his family's modest financial means, he had to work as a barber, in his father's trade, from a young age, especially after his father's early death; this work helped pay for his studies. He had the top score on the examination to choose an intern in Professor Àlvar Esquerdo's department. Later, Enric Ribas i Ribas, an associate in the same department, allowed





him to work as a trainee in his clinic. This work improved his finances, though he would continue working as a barber on Saturday afternoons⁵.

He graduated in 1906 and two years later earned a position as a physician in the *Dispensaris Municipals*. Later he continued collaborating with Ribas i Ribas when the latter was designated head of the Department of Surgery at the *Hospital de la Santa Creu*. Corachán was chosen for the same post on the death of Àlvar Esquerdo in 1921. While devoting himself to these tasks, in 1915 Corachán had opened a small clinic; six years later, under the name *Casa de Salut Clínica Corachán*, he expanded his practice with a new centre. The establishment still exists on the same premises as the *Institut Clínica Corachán*.

In 1925, Corachán earned a PhD with a thesis on gastric surgery in Madrid, the only Spanish university that granted such a qualification at that time. On 19 April that year, he was elected a member of the *Reial Acadèmia de Medicina de Barcelona* replacing Ramon Torres. Corachán's speech, *El cirujano. Su aspecto científico y profesional a través de los tiempos* (The surgeon: his scientific and professional countenance over time), was honoured with a reply by Salvador Cardenal, the preeminent surgeon who had introduced the practice of aseptic surgery into Spain. In 1933, Corachán was appointed professor of surgical pathology at the *Universitat de Barcelona* in recognition of his scientific and teaching abilities, which had become patent in previous years. In the ensuing years, he gave courses in general surgery⁶. Alongside Ribas i Ribas and the Trias i Pujol brothers, he founded the *Revista de Cirugía de Barcelona* (Barcelona Journal of Surgery) in 1931⁷.

He was also attracted to the field of politics; in 1933 he was elected president of *Sindicat de Metges de Catalunya* (the Physicians' Union of Catalonia), a powerful medical association at this time. In 1935, during a tribute in Xiva, he received the Cross of the Order of the Republic⁸. His work was also recognised with his appointment as Minister of Health

and Social Care of the *Generalitat de Catalunya* (Government of Catalonia) in May 1936. Although Corachán's politics differed from those of the government of the time, he accepted the post with a moral justification:

"I came to Catalonia in my youth, almost a child, leaving behind my native town of Xiva in Valencia to come and live in my uncle's house in the neighbourhood of Sants in Barcelona, at the barbershop they had. There, while shaving customers, I studied for my profession and became a man. Everything else I have achieved up to reaching the position I now hold, I owe to Catalonia. Catalonia made me and has given me all it had to give. I think that at this time, as I enter the final phase of my maturity, it is fitting that I make the sacrifice, even a substantial one, for the good of the country that has taken me in like a son"9.

Corachán, however, had little chance to prove his worth at the head of the department. He soon resigned and shortly afterwards was forced to go into exile.

Similar to the circumstances surrounding the flight of Lluís Sayé, an internationally recognised specialist in tuberculosis¹⁰, the Corachán family's flight from Catalonia had more to do with threats from uncontrolled groups during the early days of the Spanish Civil War than with any stand contrary to the Republican government. Trueta, one of Corachán's main disciples, explained in detail how this flight took place and the tragic events that accompanied it⁹. The Civil War having broken out, he saw that he had no chance to do anything and President Companys accepted his resignation on August 1. Soon afterwards, he was "pursued by a group calling themselves anarchists, whose leader claimed that Corachán had operated on him and left him incapacitated due to a supposed technical error"⁹; this man demanded substantial financial compensation. However, Corachán's friend, Jaume Aiguader, advised him to leave the country, which he did, aided by an authorisation from President Companys himself.

However, this decision did not resolve the question, as shortly afterwards the same individuals made the same demands on Corachán's son, Manuel Corachán i Llort. According to Trueta⁹, they demanded 30,000 pesetas, which Manuel deposited at the Palace of Justice to avoid problems. The strategy failed; they continued to pressure him, claiming they had only received 20,000. Given the situation and the threat to his life it represented, Manuel decided to flee to France and managed to arrive there after many ordeals. Against the advice he was given, he decided to cross over to the territory controlled by Franco's army, possibly influenced by his wife, who had family there. Although Manuel was a first-class neurosurgeon and Franco's army had few if any first-class neurosurgeons, he was unable to gain acceptance as a physician due to the opposition of a military colleague, perhaps because his father had occupied a prominent position in the government of Catalonia⁸. Finally, he volunteered as a nurse, and was wounded on the Basque front, apparently by a shell from the German air force. His wounds were not serious, but were not treated correctly, and he developed gas gangrene and died at the age of 27.

After his son's death, Corachán decided to go into exile in Venezuela in May 1937. In Latin America, he directed the Institute of Experimental Surgery in Caracas and was appointed head of the departments of anatomic technique and surgical technique at the *Universidad de Caracas*. He was invited to deliver conferences and undertake operations in Cuba, Mexico, and the United States, where he was made a corresponding member of the American College of Surgeons in October 1940⁵. Finally, he returned to Catalonia in June 1941. The *Tribunal de Responsabilidades Políticas* (Court of Political Responsibilities) in Barcelona had condemned him on 30 July 1940 "to pay 75,000 pesetas for having been the Minister of Health in the government of Catalonia for a short time", though it recognised that he "offered his resignation and left the country [...] Considered a person of order"^{8,11}. It is clear that these statements should be read in the context of the period, but they enabled him to be reinstated in his position as head of surgery at the *Hospital de la Santa Creu i Sant Pau*

in Barcelona without undue difficulty. On 8 January 1960, the *Comisión Liquidadora de Responsabilidades Políticas* (Commission for the Settlement Political Responsibilities) waived the above-mentioned fine⁸, but it was too late; Corachán died prematurely on 1 February 1942, a victim of the typhus epidemic that was sweeping Barcelona³.

Corachán left a large body of written works. As well as nearly 200 scientific articles, especially notable are three books: *Cirugía gástrica* (Gastric surgery), *Clínica y terapéutica quirúrgica de urgencia* (Emergency clinical conditions and surgical therapeutics), and *Diccionari de medicina* (Catalan Dictionary of Medicine). *Cirugía gástrica* (Gastric surgery) was published in two volumes: the first, 794 pages long, appeared in 1934, while the other, 666 pages long, was published shortly after his death.

Corachán also maintained a long and intense relationship with the *Acadèmia de Ciències Mèdiques*, which he served as secretary (1921-1923), vice-president (1925-1927), and president (1932-1934). He was also the founder and second president of the *Societat Catalana de Cirurgia* (1930-1931). Furthermore, he published numerous articles in *Annals de Medicina* between 1908 and 1936. In 1931, he proposed the Academy move its premises from Portaferrissa Street to the *Casal del Metge*, on Via Laietana, where it remained until 1970. Corachán was also elected President of the X *Congrés de Metges de Llengua Catalana* (Congress of Catalan Language Physicians), which was to be held in Valencia in 1938. However, due to the Spanish Civil War and later circumstances, the X Congress did not take place until 38 years later, when it was held in Perpignan, France; Valencia would not be the seat of the organization until 2004.

The Corachán family and the birth of Catalan neurosurgery

The first surgical operations on the nervous systems were collaborative interventions in which a neurologist made the topographic diagnosis and a general surgeon performed the operation¹². Then, early in the twentieth century, the first specialists who were trained in both neurology and surgery made concurrent diagnosis and intervention possible. In Catalonia, the new specialisation developed at the *Hospital de la Santa Creu* with the collaboration of surgeons such as Cardenal, Reventós, and Corachán himself. Corachán and Ribas i Ribas participated in resections of cortical areas affected by scarring injuries in epilepsy patients under the supervision of Barraquer i Roviralta¹³. However, the new era belonged to younger men, such as Corachán's son, Manuel Corachán i Llort.

Receiving his MD in 1931, Corachán i Llort had completed internships abroad during his time as a student. He worked at the Laboratoire de Physiologie de Toulouse of Languedoc in France and at the Cantonal Hospital of Geneva in Switzerland, together with Antoni Llauradó and Vicens Artigas. Later, he undertook doctoral studies in Madrid, where he worked in Pío del Río Hortega's laboratory. He would also travel to the Städtisches Krankenhaus in Frankfurt and the Hôpital de la Pitié in Paris. He returned to Barcelona in 1934 and joined his father's Department of General Surgery, though he spent a large amount of time in the Neurology Dispensary. In this period he operated on no fewer than 35 patients admitted to hospital through the Department of Neurology. After being operated on, they were monitored in Corachán i Llort's own Department of Surgery before being reassigned to the Neurology Department. As Molet et al.¹² emphasised, the clinical histories of these patients show that history taking and neurological examination had improved greatly, indicating a change and specialisation in the sphere of neurosurgery as well as the incorporation of specific diagnostic tests (e.g., pneumoencephalography and myelography using lipiodol).

Unfortunately, Corachán i Llort's premature death put an end to the promising career in neurosurgery that his early years had seemed to presage.

Corachán gastropexy

Manuel Corachán i García was one of the last "great general surgeons" in Catalonia. In the words of Casassas⁶: "He was a perfect surgeon, who took care of every detail in an operation, both surgical and postoperative". He published papers about orthopaedic-traumatological surgery and later shifted his attention to gastric and digestive surgery. He also practised plastic, vascular, thoracic, and endocrine surgery -even neurosurgery, as noted in the above section. Not only did he practice surgery, but he also carried out numerous research studies, both in Barcelona and Venezuela. These included studies on skin grafts, chloruremia in intestinal occlusions, carcinogenesis, and the appearance of collateral vessels after ligating arterial trunks². He contributed to the invention of certain procedures that were innovations in their time, such as skin grafts, elbow arthroplasty, gastrostomy, colostomy, denervation of the adrenals to treat diabetes, or a new approach to access the humerus. Net¹⁴ concludes that urological surgery developed from Corachán's department through the work of his disciple Vicens Compañ. Corachán also established relations with the German surgeon Sauerbruch, who did the first operations in prosthesis surgery in Munich, especially on the stumps of upper-limb amputees, and Corachán introduced these procedures in Catalonia¹⁴. However, we will focus on describing his contribution to gastropexy, known as Corachán gastropexy.

In his book *Cirugía gástrica* (Gastric surgery)², Corachán devotes a chapter to describing the techniques of gastropexy and gastroapplication. Gastropexy is a procedure to suspend the stomach

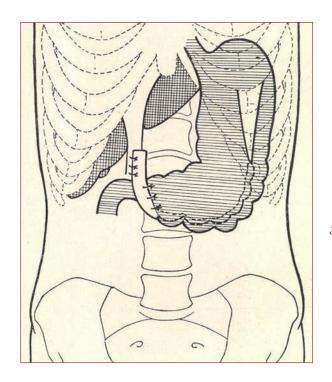
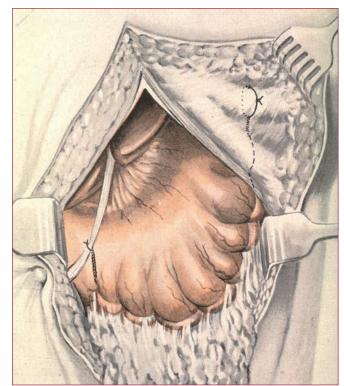


Diagram illustrating Lambret gastropexy in Corachán's book *Cirugía gástrica*² (Gastric surgery)

that is used to treat gastroptosis and certain forms of "idiopathic or atonic dilatation of the stomach". Corachán described five approaches to the procedure in use at that time: suspension of the stomach by fixing the greater omentum to the anterior abdominal wall (Coffey operation), shortening the greater omentum (Beyea operation), direct fixation of the stomach to the abdominal wall (Duret operation, Rovsing gastropexy), suspension of the lesser curvature (Perthes gastropexy) and suspension of the greater curvature (Lambret gastropexy). Corachán chose to modify Lambert's procedure to make it quicker and easier to perform. In 1933, he had published an article entitled *Modification de la technique de Lambret dans la gastropexie* (Modification of Lambret gastropexy technique) in the *Bulletin de la Société Nationale de Chirurgie*. In Corachán's words²:



Corachán gastropexy²

"The advantages of gastropexy with the round ligament of the liver, which Perthes conceived in 1920, have been surpassed by the procedure that Lambret presented in 1931, since in this latest technique the stomach is suspended from the greater curvature, which is in a relaxed state, and furthermore, because it achieves a reduction of the gastric cavity thanks to the stomach creasing along the aponeurotic band. We have employed the Lambret method with excellent results, but find his technique complicated and cumbersome due to the time lost in dissecting and preparing the aponeurotic band. So as to simplify the method, while respecting his fundamental bases, we have conceived a modification that consists of

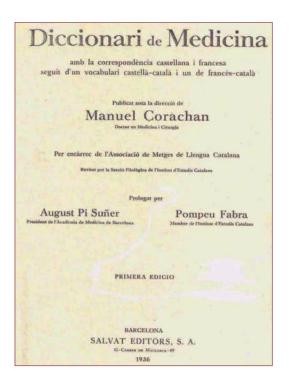
replacing the aponeurotic strip with two thick silken threads, twisted around each other like a cord, and which we fix, on one side, to the left chondral arch, without piercing the skin, and on the other, to the suspensory ligament of the liver. The suture of invagination and coulissage along the greater curvature is done in the same way as the Lambret method; for this suture we use fine silk. The degree of fixation of the silk cord to the chondral arch depends on the arrangement of the patient's thorax and varies from case to case. The advantages of our method consist mainly in simplifying the operation, which can be undertaken in ten or fifteen minutes, with fewer incisions and sutures, achieving remarkable solidity of the suspension and stability of the support points."

We do not know how useful the operation was or whether it was performed by other surgeons after Corachán's death. Nevertheless, it shows his interest and ability in improving surgical procedures and reducing their aggressiveness; Corachán was always concerned with postoperative care, beyond mere technical success.

Corachán and the Catalan Dictionary of Medicine

Most Catalan physicians nowadays remember Corachán for his participation in creating the first Dictionary of Medicine available in Catalonia in the Catalan language. Corachán edited and partly financed this work written by 85 collaborators, including the great medical figures of the period. For example, among the surgeons who contributed were the Trias i Pujol brothers, Puig-Sureda, Pi i Figueras, and Trueta¹⁵. Published in 1936, it was in fact commissioned during the course of the *Vlè Congrés de Metges i Biòlegs de Llengua Catalana* (VI Congress of Catalan Language Physicians and Biologists) held in 1930. Corachán said of the recently published book: "We have called it *Diccionari de Medicina* (Catalan Diccionary of Medicine)... because we believe the time has come

Cover of the *Diccionari de Medicina* (Catalan Dictionary of Medicine), edited by Manuel Corachán, 1936



when Catalan books need not declare that they are written in Catalan." The dictionary contained a foreword by August Pi i Sunyer and another by Pompeu Fabra, who wrote that "this dictionary must contribute to improving the *Diccionari General de la Llengua* (General Language Dictionary)"⁶.

Fernández i Sabaté¹⁵ explained the dictionary's ultimate fate. It was published in instalments, complemented with Spanish-Catalan and a French-Catalan glossaries, totalling 830 pages for binding. It was to be distributed in the autumn of 1936, but the outbreak of the Spanish Civil War made it advisable to hold off. The entire edition was stored in the basement of the *Casal del Metge* in sealed boxes awaiting more peaceful

times. This was a tightly guarded secret because knowledge of its existence could lead to its destruction, given the persecution of the Catalan language in the post-war period. From the 1960s onward, the work was discreetly distributed among doctors who requested it until no more copies remained¹⁵.

The Diccionari became legendary among those who defended the use of Catalan in medicine. It was the only reference work available to Catalan physicians until the appearance of the first Vocabulari Mèdic (Medical glossary) in 1974, published on the initiative of the Acadèmia de Ciències Mèdiques de Catalunya i de Balears and its president, Josep Laporte. It would not be substituted, however, until 1990, when the Diccionari Enciclopèdic de Medicina (Encyclopaedic dictionary of medicine), edited by Oriol Casassas, was published. Publication of the second edition ten years later, now coordinated by Màrius Foz, Eduard Llauradó, and Joaquim Ramis, would also normalise the situation in this sphere. Nevertheless, it should be remembered that 54 years were to elapse between the publication of Corachán's and Casassas' dictionaries.

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