

Exiled medics in Mexico. Their work and contributions (1936-1939)

Médicos exiliados en México. Su labor y aportes (1936-1939)

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Abstract

The Spanish republican exile marks one of the most important moments of cultural exchange between Mexico and Spain. The proposal of this article is to analyze the arrival of these Spanish in Mexican lands, the causes that motivated their departure, as well as their most significant contributions in the field of Mexican medicine. Rafael Méndez, Dionisio Nieto, Isaac Costero, Ramón Álvarez and José Puche were five of the physicians who most stood out in the field of medicine for their teachings and research after a cycle of war activity in the fields of Europe. Likewise, as they contributed to the training of new generations of researches and academics from the National University of Mexico and others educational institutions on the country.

Keywords: Spanish exile. Medicine. Mexico. Contributions.

Resumen

El exilio de republicanos españoles marca uno de los momentos de intercambio cultural más importantes entre México y España. La propuesta de este artículo es analizar la llegada de médicos españoles a tierras mexicanas, las causas que motivaron su salida y sus contribuciones más significativas en el campo de la medicina mexicana. Rafael Méndez, Dionisio Nieto, Isaac Costero, Ramón Álvarez y José Puche fueron cinco de los médicos que más destacaron en el campo de la medicina por sus enseñanzas e investigaciones tras un ciclo de actividad bélica por los campos de Europa. Asimismo, contribuyeron a la formación de nuevas generaciones de investigadores y académicos de la Universidad Nacional de México y de otras instituciones educativas del país.

Palabras clave: Exilio español. Medicina. México. Aportes.

Introduction

On September 1, 1939, General Lázaro Cárdenas del Río delivered “before Your Sovereignty the fifth report containing an extract of the work carried out by

the various agencies of the Executive Power during the fifth year of current administration, and at the same time, exposing the main events that took place in the same period, for your consideration”¹. One of them was the subject of Spanish refugees in Mexico. In this regard, the president declared the following: “In

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compliance with universal duties of hospitality, and in view of the collective misfortunes of Spain, the doors of Mexico were opened to the republican elements who cannot be in their homeland without danger for their lives, and for considering, furthermore, that this is a contribution of human strength and race to ours in spirit and in blood, which, merged with indigenous imprint, contributed to the construction of our nationality. The Federal Government hopes that, once the stage of pre-electoral turmoil, which has wielded such an attitude as a political opposition weapon, is over, the benefits Mexico receives with the contribution of those human energies that come to contribute with their capacity and effort to the development and progress of the Nation, will be appreciated throughout the country². With these words, President Lázaro Cárdenas granted political asylum to the Spanish Republicans who decided to leave their native country. "This decision had as a consequence the arrival in Mexico of more than 30,000 Spaniards, who were received in the country from the beginning of the Civil War until the post-war years." Among the Spanish exiles who arrived in Mexico during the years 1937 to 1939, there were professionals and intellectuals.

Mexican historian and economist Daniel Cosío Villegas (1898-1976), who was in Portugal on business, had the great idea of welcoming Spanish intellectual scientists in order for them to continue with their scientific activities while the Spanish Civil War was over, and at the same time, to contribute to the scientific and technological development of the country that gave them refuge. Who were these Spanish scientists? According to Luis Enrique Vázquez Castillo's thesis *Los "intelectuales" españoles transterrados en México* (The Spanish "intellectuals" exiled in Mexico), around 5,000 intellectuals arrived in the Mexican Republic³, among whom there were physicians of different specialties.

Spanish physicians arrival in Mexican lands

Mexican physician Salvador Zubirán, during his honeymoon trip, was commissioned as "most special ambassador" by President Cárdenas to meet in Paris with Spanish intellectuals and offer his help to some scientists concentrated in the French fields. This way, the Mexican authorities tried to carry out a generous operation that would be profitable both for the defeated Republicans and for the Mexican people⁴.

By the end of January 1939, Daniel Cosío Villegas had already gotten ahead by bringing these intellectuals to Mexico in order for them to continue with their work while contributing to scientific and technological development of the country. The new guests carried out activities in the fields of engineering, architecture, chemistry, exact sciences, natural sciences, and medicine, with physicians being the most numerous group. Among the first twelve guests who were on Cosío Villegas' list were doctors Gonzalo Rodríguez Lafora (discoverer of the clinical entity that bears his name: "Lafora's disease"), whose specialty was Psychiatry, and professor Isaac Costero, an oncology and histology specialist, who arrived in Mexico at age 36. For Dr. Francisco Giral, a Spanish pharmaceutical chemist and teacher, exiled in 1939, Costero was "without a doubt, the most prestigious exiled scientist, the one who has produced more high-quality original work, the one who has created a true school with the largest number of distinguished students, and whose work has had the highest significance in Mexico"⁵.

Of course, with the course of the war and the fall of Madrid into Franco's hands, the guest list became longer and more complex. It was joined by "physiologist Jaime Pi-Suñer, endocrinologist Rosendo Carrasco Formiguera and physician Antonio Trías; ophthalmologists Manuel Márquez and Manuel Rivas Cherif would subsequently join, as well as oncologist Germán García and psychiatrist Dionisio Nieto"⁶. Many of the doctors who arrived during the year 1939 did not bring along the titles or documents that accredited them as professionals of medicine, which is why, upon their arrival in Mexico, they had the serious problem of having to certify their profession. It was then that President Cárdenas asked the president of newly-created *Ateneo Ramón y Cajal*, Manuel Márquez Rodríguez, Ophthalmology professor at the Faculty of Medicine of the University of Madrid, to take care of certifying the doctors who had arrived after a thorough examination on each case.

Upon passing the exam, the *Ateneo* issued certificates that replaced the professional degree revalidated by Mexican authorities, thus allowing Spanish physicians' legal practice⁷. These physicians, by having a document that ratified their profession, immediately started working in various parts of the Mexican Republic, such as Tamaulipas, Hidalgo, Nuevo León, Veracruz, Yucatan, Jalisco, Puebla, and Mexico, and at the same time, gave lectures at *Casa de España*, wrote numerous books on medical topics, collaborated in medical journals such as *Acta Hidalguense*

and *Archivos Médicos Mexicanos*, and translated books written in other languages into Spanish. In the words of prominent Mexican cardiologist, Dr. Ignacio Chávez Sánchez (1897-1979), “Spanish doctors came to Mexico at the precise moment that, with the transformation of medicine having started barely two or three decades earlier, the pace of its advancement was gaining momentum”⁸.

When these exiled physicians arrived in Mexico, science was beginning to stand out and medicine was undergoing a process of renewal thanks to the creation of new medical specialties at the General Hospital, such as cardiology under the direction of Dr. Ignacio Chávez. Moreover, the Institute of Public Health and Tropical Diseases, which started operating on March 18, 1939, and the Hospital of Nutritional Diseases in the early 1940s, were created. Around this time, the Federico Gómez Children’s Hospital was also founded (April 30, 1943), the project of which had been started in 1933. Similarly, investigations on the function and pathology of the nervous system were initiated: “a curious coincidence gave rise to the fact that, in the 1940’s, in Mexico, the biomedical sciences related to the nervous system, what we know today as neurosciences, did develop with great impetus”.

As it can be observed, thanks to the support in educational matters by Lázaro Cárdenas and the scientific contribution of some Spanish intellectuals who found a working shelter at the university, “UNAM entered a period of strengthening and expansion of research institutes and faculties”⁹, and of course, a moment of academic splendor was experienced. Among the Spanish physicians who stood out as academics at the university and gave a strong drive to Mexican medicine, there are four who completed their professional training very young and who became part of UNAM’s teaching staff and carried out research work at this institution.

A life devoted to medicine. The work of Spanish physicians

The first one of these four doctors was Dr. José Puche Álvarez (1895-1979), who was president of the Technical Committee for Spaniards’ Aid in Mexico, and who, upon arriving in Mexico City initially joined the National Polytechnic Institute as a teacher from 1939 to 1946, and later joined the UNAM, from 1945 to 1965. In 1958, he joined the Physiology Department of UNAM’s Faculty of Medicine. There “he formed a group of postgraduate students whom he managed to

get interested in the physiology of glucose regulation and food intake, topics whereby he started his scientific career”¹⁰. His investigations on hydrocarbon metabolism in some crustaceans of the genus *Procambarus bouvieri cabalbroy* and *Cambareus moctezumae*, demonstrating sinus gland neuroendocrine activity and its role in glycemic response, stand out. He participated in the physiology teaching programs review commission and, in 1965, he organized a course for the training of physiology professors. He died in 1979 and left his extraordinary library as a legacy to the Faculty of Medicine. In the book *España desde México. Vida y testimonio de transterrados* (Spain from Mexico. Life and testimony of exiles), its author presents to us an interesting interview she made to Dr. José Puche before he passed away⁹.

Dr. Rafael Méndez Martínez (1906-1991) formed an important school of renowned researchers in biomedical sciences of Mexico. Dr. Mendez traveled to the United States as an exile from the Civil War. He was taken in by Harvard University, where he was appointed instructor and research associate at the School of Medicine. “In 1944, Dr. Chávez invited him to become head of the Department of Pharmacology at the National Institute of Cardiology. Subsequently, he carried out his research and teaching duties as a pharmacology professor at the Higher Education Division of UNAM.”¹⁰ As of 1975, he was appointed head of the Research Division of the National Institute of Cardiology. His contributions to pharmacology were constant, specifically in the field of digitalis glycosides and verantin derivatives, antiarrhythmic drugs, coronary circulation and its adrenergic receptors. He contributed to the training of Mexican researchers, such as Juan José Mandoki, Pablo Rudomin, Jorge Aceves, Gustavo Pastelín, Carlos Méndez, Davis Erlij, Antonio Morales, and Fermín Valenzuela. He died in 1991. Author Ascensión H. de León Portilla conducted an interview with him that can be read in her book.

The third prominent physician was Dr. Dionisio Nieto Gomez, who acquired the Mexican nationality in 1941. He was born in Madrid, Spain, on March 13, 1908, and passed away on January 2, 1985, in Mexico City. He was a neurologist and psychiatrist who influenced the development of psychiatry in Mexico, “defender of the study of mental illnesses’ physiological bases by conducting studies on brains from autopsies at *La Castañeda Psychiatric Hospital*”¹⁰. In 1964 and 1965 he took over the head office of the psychiatry and brain research department of the National Institute of Neurology and Neurosurgery, where he continued

with the training of generations of neurologists and psychiatrists. He held the chair of clinical psychiatry and taught postgraduate psychopharmacology. He investigated the alterations produced by the infection caused by the tapeworm known as *solium*, contracted by contaminated meat ingestion and, in 1956, he designed a complement fixation reaction for the diagnosis of nervous system cysticercosis, known as "Nieto's reaction", used for decades. As he was able to implement his neurobiology laboratory at UNAM, he conducted a careful investigation on the pathological anatomy of schizophrenia. He was the first psychiatrist in Mexico to use chlorpromazine and tricyclic antidepressants for the treatment of severe mental disorders. He was editor of the *Neurología, Neurocirugía y Psiquiatría* journal in 1959.

Finally, Dr. Isaac Costero Tudanca (1903-1980), who from a very young age was interested in histology (study of tissues), to which he devoted most part of his life. At the end of the Civil War he had to go into exile in Mexico, where he founded and developed the Mexican School of Pathology. He was an excellent and tough teacher, first at the General Hospital and then at the National Institute of Cardiology, where he taught cardiology for 30 years and developed works on histopathology of the nervous system. In the latter institution, he investigated hypertension, which led him to propose a new classification of cellular systems and the existence of the "fourth element of the nervous system"¹¹. In 1964, Costero started being interested in the history of pathological anatomy in Mexico and found himself in charge of starting a second era within this field, by including it within UNAM's Medical School curricula. "He was the teacher of more than 14,000 students and trained a hundred national and foreign pathologists. His book *Tratado de anatomía patológica* (Treatise on pathological anatomy) was a mandatory text in many medical schools of Latin America.^{6"} In 1979, shortly before his death, he was appointed Doctor Honoris Causa by the National Autonomous University of Mexico.

Although these four doctors were the ones who left the deepest mark on Mexican medicine, there were others, such as "José Ignacio Bolívar and Francisco Bolívar Zapata, who began to produce sera against typhoid fever, tetanus and diphtheria toxoids"¹². Alejandro Otero Fernández was rector and Gynecology professor at the University of Granada. In Mexico, he took charge of the maternity ward of the *Sanatorio Español* and taught courses on fecundity and fertility at the Mexican Society of Gynecology and Obstetrics.

Gynecology specialist José Torre Blanco was one of the founders of this society and "was in charge of directing the Division of Gynecology and Obstetrics of the *20 de Noviembre* Hospital, where he developed part of his research on ectopic pregnancy and on the relationship between the kidney and pregnancy"⁸.

Academic Germán García García, a Spanish doctor exiled in 1939, stood out in the field of oncology. When he joined the Morelos Hospital, he founded, with multiple difficulties, the Gynecological Cancer Detection Department, and also the first Cytopathology Laboratory, supported by then Spanish philanthropist Santiago Galas. He was one of the pioneers in the use of the Papanicolaou stain technique for the detection of cervical cancer. He opened the Oncology chair at the Higher School of Medicine of the National Polytechnic Institute (IPN – *Instituto Politécnico Nacional*), where he founded the cancerology department.

In the field of ophthalmology, we should mention Manuel Rivas Cherif, who was head of the ophthalmology department at the Association to Prevent Blindness Hospital. He conducted research on deep membranes of the eye photographic images, photophthalmology, visual acuity, insomnia of ocular origin and anesthesia in cataract surgery.

The use of a special dye to see how blood flows through the brain (cerebral arteriography) "progressed with Jesús Sánchez Pérez contributions. Julio Bejarano Lozano, a teacher and researcher of extraordinary quality, gave significant promotion to the medical specialty responsible for studying the function of the skin, or dermatology when he was elected president of the Mexican Society of Dermatology, and by having published more than one hundred works on the topic of leprosy. Doctors Victoriano M. de Acosta and Pelayo Vilar Canales influenced the field of otolaryngology"¹².

Several psychiatry specialists arrived in Mexico. In this area, Wenceslao López Albo, who served as Psychiatry professor at the University of Nuevo León and was head of the Neuropsychiatry department at the Spanish Hospital, in Mexico City, stood out. Federico Pascual del Roncal distinguished himself as promoter of a specialty that was unknown in Mexico until his arrival: pediatric neuropsychiatry; he was head of the psychiatric department at the Pedagogical Medical Institute and deputy director of the Falcón Neuropsychiatric Clinic.

In the medical specialty that studies children and their illnesses, pediatrics, we should mention specialists Antonio Encinas Rodríguez, "who was head of the

pediatrics department at the Spanish Hospital and researcher in the field of Rh factor and infant nutrition, and Antonio Palacios Martos and Jesús de Miguel Sancho, who promoted infant rehydration through plasma and blood transfusions¹².

In the field of history and science, three Spanish intellectuals who supported the development of science in Mexico with their contributions, stood out. The first one of them is doctor Francisco Guerra Pérez-Carral (1916-2011), who participated in the Civil War and graduated in Pharmacology at Yale University. In Mexico, he demonstrated the effect of cardiotonic glycosides on ox myocardial myosin, increasing its contractile force by stimulating phosphorus release. He was a Pharmacology professor at UNAM's Faculty of Medicine and wrote and published a vast bibliography on topics related to the history of Medicine, mainly in Mexico. He is remembered for the books *Bibliografía de la materia médica mexicana* (Bibliography of Mexican medical matters), published in 1950; *Bibliografía de la historia de la medicina mexicana* (Bibliography of the history of Mexican medicine), published in 1949; *Iconografía médica Mexicana: Catálogo gráfico descriptivo de los impresos médicos mexicanos de 1552 a 1833, ordenados cronológicamente* (Mexican Medical Iconography: Descriptive graphic catalogue of Mexican medical prints from 1552 to 1833, chronologically ordered), published in Spain in 1955; and *Las heridas de guerra. Contribución de los cirujanos españoles en la evolución de su tratamiento* (Combat injuries: Spanish surgeons contribution to the evolution of their treatment), published in 1981, among other titles. With more than 50 works of his authorship, among books and articles, Dr. Francisco Guerra promoted the study of the history of medicine in Mexico and the world. He died in Madrid at 95 years of age.

Dr. Modesto Bargalló Ardévol (1894-1981) was a Spanish chemist who worked 40 years in Mexico. Professor at the National Polytechnic Institute, he devoted himself to the study of the history of extractive industries in Mexico, particularly of the colonial period. In addition, he was recognized for his activity as a historian of chemistry, excelling in studies on mining and pre-Hispanic, colonial and early independence metallurgy, as well as on the knowledge that original populations of this region had on these matters, the smelting techniques, regulatory ordinances dictated by governments and other related aspects. At age 87, he passed away in Mexico City.

Dr. Germán Somolinos D'Ardois (1911-1973) developed, throughout his professional career, the rescue,

registration, study, and compilation of various sources for the study of Medicine in Mexico. He was born in Madrid and died in Mexico City. He studied Medicine at the Central University of Madrid. Due to the situation Spain was going through, he came to Mexico in 1938 and quickly joined the tasks of UNAM's Faculty of Medicine, the National Institute of Cardiology and the National Polytechnic Institute and, of course, he focused his work on the analysis of scientific history of Medicine in Mexico, both on the methods and aspects of public health and on the biographies and legacies of important Mexican and foreign physicians. Some of his relevant contributions include the installation of a clinical analysis laboratory at his home, and thus he carried out, for the first time in Mexico, research on Rh factor, blood groups and erythroblastosis. Moreover, he introduced the technique to perform electrophoresis for the study of lipoproteins. In 1956, together with other historians of Medicine, he founded current Mexican Society of History and Philosophy of Medicine, of which he would become president. He died in 1973 at age 62, and his son, Dr. Juan Somolinos Palencia, an important historian and disseminator of the history of Medicine in Mexico, remained in charge of the laboratory; Dr. Somolinos Palencia stood out for the amount of written works (300 articles in journals such as *Gaceta Médica de México* and *Revista Médica del Instituto Mexicano del Seguro Social*, among others) and for his dedication to the Mexican Society of History and Philosophy of Medicine, where he served as president from 1980 to 1982.

Regarding Spanish orthopedist doctors who settled in Mexico, I only found the figure of José Montalvo Villar (1907-1973). Born in Linares, in the province of Jaén, he was an orthopedic mechanic who suffered the amputation of three fingers of the left hand during the Civil War. He arrived as an exile in the Dominican Republic with his wife and three children, and was able to obtain a political asylum visa at the Mexican consulate in the city of Trujillo (Santo Domingo) on December 14, 1943 at request of the Federation of European Refugee Aid Organizations, and enter Mexico a few weeks later. He planned to install an orthopedic workshop in Mexico City with the help of the Spanish Republicans Aid Board. He died of trauma in Mexico and was buried in the Spanish Cemetery.

Conclusion

In this text, I have presented some of the physicians who stood out in their respective fields, but there were

others whom I failed to mention and who, of course, deserve all our recognition for their contribution to Mexican medicine. In this group there are four women: María del Coro Clavero Maestre (who came to Mexico with her two children, Nora and Luis Julián Berdejo Clavero), Úrsula Mayer Van Beijeren, Cecilia Sanz Sanz and Eladia Faraudo Puigdollers. Of the former three, I did not find any information about their lives or professional activity in Mexico. Eladia Faraudo Puigdollers is known to have worked at *Generalitat de Catalunya* as director of Social Assistance. Because of the Civil War, she arrived at the port of Veracruz in 1939 and from there she moved to Monterrey, where she joined the University of Nuevo León and participated in the founding of the School of Social Work of Nuevo León and the Social Work Department of the University Hospital of Monterrey. She died in 1979 in Mexico.

What should be emphasized is that they, like the rest of the other physicians, found a fertile soil for their work and were grouped in various institutions where they could freely carry out their work. Everything was thanks to the support to higher education and scientific research by General Lázaro Cárdenas, in whose head he had the firm idea that education had to be a reflection and a transformation factor of society.

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Conflicts of interest

The author declares that he has no conflicts of interest.

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