

Dr Eduardo Bertrán Rubio (1838-1909): the first neurologist in the Reial Acadèmia de Medicina i Cirurgia of Catalonia

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ABSTRACT

Introduction. Dr Eduardo Bertrán Rubio was a pioneer in the use of medical electrotherapy in Spain. In his clinical practice, he was one of the precursors of a new medical specialty: neurology. Born in 1838, 17 years before Luis Barraquer Roviralta (1855), he is considered one of the fathers of Catalan and Spanish clinical neurology.

Development. Dr Bertrán was a true “neurology prophet,” and was known for his tenacious and persevering personality. He joined the Reial Acadèmia de Medicina i Cirurgia of Catalonia in 1865, and was the first member to be registered as neurologist and electrotherapist. A multi-faceted character and a great scholar, the publication in 1872 of his *Tratado de electroterapia* (Treatise on electrotherapy) represented his main contribution to science.

Conclusions. Dr Eduardo Bertrán Rubio died in Barcelona in 1909, at the age of 71. One of the highest distinctions of the Catalan Society of Neurology, awarded in recognition of the professional career of its members, bears his name.

KEYWORDS

Catalan neurology, Eduardo Bertrán Rubio, history, neurology

*Oh, that liberal medicine that did not heal but alleviate
and was human, deeply human and moral, which is
distant from the feared legal consequence of iatrogenic
imprudence, a comfortable negligence,
or the abstentionism of the faint-hearted!*

B. Rodríguez Arias (1895-1997)

Introduction

Dr Eduardo Bertrán Rubio was born in Zaragoza on 11 August 1838, and is considered one of the precursors of medical electrotherapy and a pioneer in the care of neurological patients.¹

He was secretary of the Reial Acadèmia de Medicina i Cirurgia of Catalonia between 1865 and 1896, and

president from 1896 to 1900. He is the first physician to be registered in this prestigious medical academy as a neurologist and electrotherapist.²

According to Dr Belarmino Rodríguez Arias, one of the first neurologists to show interest in the history of neurology, Bertrán Rubio was a man ahead of his time, despite not being recognised internationally or publishing unique, morbid observations; he was a keen clinician and a pioneering clinical neurologist.³

Development

Life and work

As a man of his time, Dr Eduardo Bertrán Rubio (Figure 1) was a multi-faceted character who produced

important work both in medicine and in academia. As such, he was also a writer and a “genuine politician of sincere and progressive ideals, who works with citizens on the streets.”³ He wrote a biography of Dr Robert Yarzabal and published poetry books and several novels (Table 1).

He had sufficient financial means to establish an electrotherapy clinic at his home, using static electricity devices and galvanic and faradic currents in his medical practice. He was able to perform all these techniques in his rudimentary neurology clinic in 1865. This Catalan doctor often said that electricity would become one of the most powerful therapeutic resources. He strongly believed that future therapies would exclusively use physical agents (heat, light, electricity, etc) to cure.^{4,5}

Before the golden era of Jean-Martin Charcot, Dr Eduardo Bertrán Rubio used faradisations to treat paraplegia, hemiplegia, and facial palsy in his clinical practice.^{4,5}

He also invented and modified several electrotherapy devices and presented his method at various congresses, including the Regional Congress of Medical Sciences in Cádiz in 1879, the International Medical Congress in Seville in 1882, and the Congress of Medical Sciences in Barcelona in 1888, held within the framework of the Barcelona Universal Exhibition, where he presented one of his designs, a magneto-faradic apparatus.

In his daily practice, he worked as family doctor but also as neurology specialist, studying neurological symptoms from a healthcare perspective, although with no interest in research. This enabled him to gather brief but pioneering notions of neurological alterations or disorders, before their systematic study by the neurology school established by Barraquer Roviralta in 1882 (Figures 2 and 3).

As mentioned by Dr Rodríguez Arias, an expert on Dr Bertrán Rubio’s works, he “alleviated the suffering of patients with paralysis or pain, and of those stubborn patients with nerve conditions”.³

One of the earliest clinical neurologists

From a historical viewpoint, Dr Bertrán Rubio has been recognised for his pioneering work in the emergence of a new specialty, neurology. It should be noted that he was born 17 years before Dr Barraquer Roviralta (1855).



Figure 1. Dr Eduardo Bertrán Rubio

According to Rodríguez Arias, he was a “neurology prophet.”³

We should also mention that in Dr Bertrán Rubio’s time, few drugs were used and with uncertain efficacy; electrotherapy was very frequently prescribed, as were mineral thermal baths, with therapies based on climate factors, ingestion or submersion systems, and the standardised rest period of 21 days.¹ In 1872, he published a treatise on electrotherapy⁴ and a piece on “the treatment of neuralgias using electricity.” According to Rodríguez Arias³:

...His scientific publications, his lessons, and his interventions in academia were of interest due to their expansive and instructive character, and surprised audiences as they were declaimed with perfect diction and a philosophical style, using anthological sentences and robust judgements, whether delivered orally or in the written word of a man of letters, a born mentor.

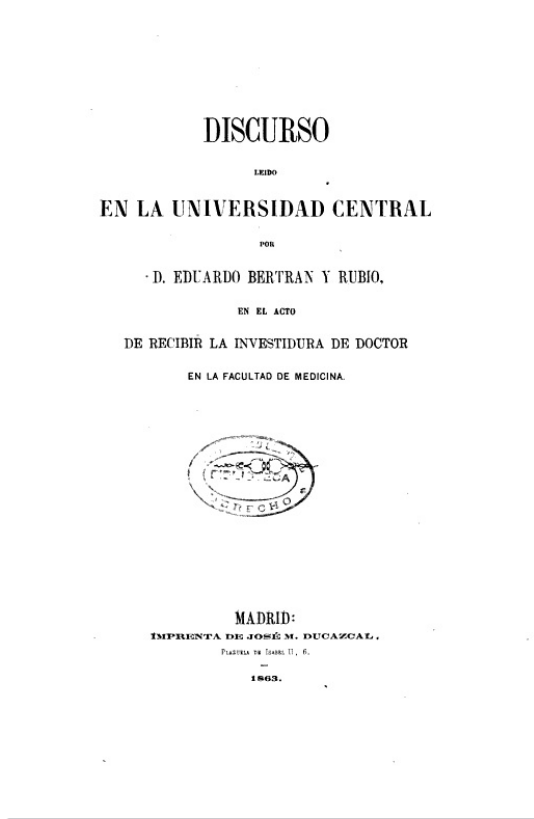


Figure 2. A speech delivered by Dr Eduardo Bertrán Rubio at the Faculty of Medicine of the Central University of Madrid during his investiture as doctor in 1863 after presenting his doctoral thesis “What physical and moral education should women receive that would best conform with the great destinies assigned by Providence?”

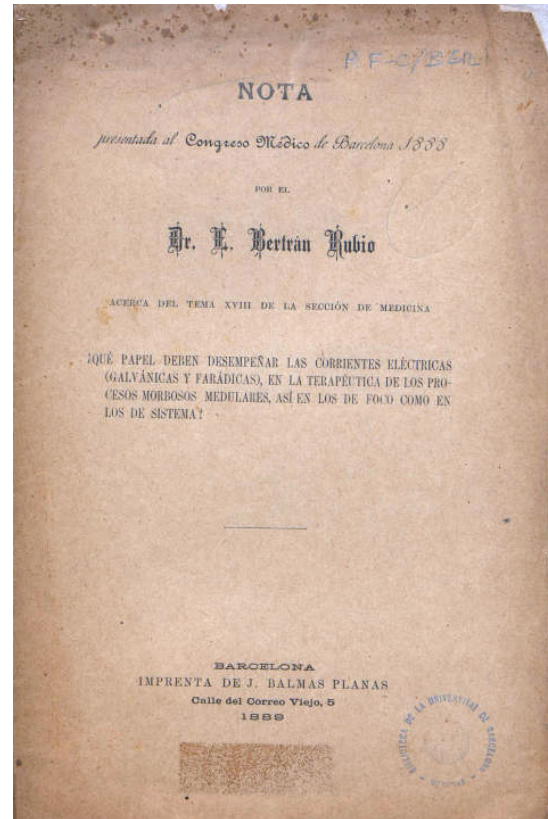


Figure 3. Communication presented by Bertrán Rubio at the Barcelona Medical Congress of 1888, with the subject “The role of electric currents (galvanic and faradic) in the treatment of spinal conditions, in both focal and systemic complications.”

Dr Bertrán Rubio chaired both the provincial and the municipal health boards in an age of epidemics; he also led the executive board of the Cases de Caritat i de Maternitat in Barcelona. In recognition of his professional career and medical prestige, he was awarded the Cross of Carlos III and the Cross of Isabella I.

One of the highest distinctions of the Catalan Society of Neurology, acknowledging its members' professional careers, bears his name.

Historical figures in neurology

Dr Eduardo Bertrán Rubio (1838-1909) was a contemporary of several historical pioneers of neurology, such as Dr Bartomeu Robert Yarzabal (1842-

1902), an internist and chair of internal medicine who was also known for his public service (he was mayor of Barcelona in tumultuous years).^{6,7} Dr Robert, mentor to Luis Barraquer Roviralta (1855-1928), showed a strong interest in the study of neurological diseases. For that reason, he motivated and encouraged Dr Barraquer Roviralta to establish Spain's first “neurology and electrotherapy dispensary” at the former Hospital de la Santa Creu in Barcelona in 1882.⁸⁻¹¹ The hospital would be the first in Catalonia and in Spain to have a unit dedicated exclusively to the care of patients with nervous system disorders.

The biography of Bertrán Rubio would therefore coincide, although tangentially, with that of Dr Barraquer

Table 1. Works published by Eduardo Bertrán Rubio

- ¿Cuál es la educación física y moral de la mujer, más conforme a los grandes destinos que la ha confiado a la Providencia? (What physical and moral education should women receive that would best conform with the great destinies assigned by Providence?) Doctoral thesis. Universidad Central. Madrid: José M. Ducazcal; 1863.
- Apuntes sobre alteraciones y sofisticaciones de algunas sustancias alimenticias y principales medios de reconocerlas (Notes on alterations and sophistications of some food substances and the main ways to recognise them). Barcelona: Llib. José Ginesta; 1865.
- Ojeada sobre la historia y aplicaciones de la electricidad médica (Overview of the history and applications of medical electrotherapy). Barcelona: Editorial de Manero; 1873.
- Electroterapia. Algo acerca del tratamiento de las neuralgias por medio de la electricidad (Electrotherapy. Brief notes on the treatment of neuralgia using electricity). Barcelona: Jaime Jepús; 1872.
- Electroterapia. Métodos y procedimientos de electrización. Teoría y descripción de los aparatos más usados en electroterapia e instrucciones para su manejo con nociones acerca de la acción fisiológica (Electrotherapy. Methods and procedures of electrification. Theory and description of the most widely used electrotherapy devices, instructions on their operation, and notions on their physiological action). Barcelona: Jaime Jepús; 1872.
- Electroterapia. Unas cuantas palabras acerca de la electro-puntura en el tratamiento de los aneurismas (Electrotherapy. A few words on electropuncture for the treatment of aneurysms). Barcelona: Jaime Jepús; 1873.
- El Médico contemporáneo (bosquejo) (The contemporary doctor [outline]). Speech at the opening session of the Reial Acadèmia de Medicina i Cirurgia of Catalonia. Barcelona: José Miret; 1877.
- Croquis humanos: cuentecillos y bocetos de costumbres (Human sketches: little tales and drawings of customs). Madrid: P. Nuñez; 1878.
- Dr Francisco Salvá i Campillo. Barcelona: Suc. N. Ramirez; 1886.
- La medicación nitrogenada por las aguas azoadas artificialmente (Nitrogenated drugs from artificial mineral water). Barcelona: La Academia; 1888.
- ¿Qué papel deben desempeñar las corrientes eléctricas (galvánicas y farádicas), en la terapéutica de los procesos morbosos medulares, así en los de foco como en los de sistema? (The role of electric currents [galvanic and faradic] in the treatment of spinal conditions, in both focal and systemic complications). Barcelona: J. Balmas Planas; 1889.
- Speech given in reply to “El Radium”, a presentation given by Pedro Genové-Soler at the Reial Acadèmia de Medicina i Cirurgia of Catalonia. Barcelona: Henrich; 1891.
- Un violoncelista (A violoncellist) Barcelona: Jaime Jepús; 1892.
- Notes for a biography of Dr Francisco Campá y Porta. Barcelona: Jaime Jepús; 1892.
- Higiene de la educación (Education hygiene). Speech given in reply to J. Durán Trinchera. Barcelona: Henrich; 1893.
- Sobre hipnotismo y otras cosas (On hypnotism and other matters). Barcelona: Henrich; 1894.
- Los modernos derroteros de la higiene (The modern paths of hygiene). Barcelona: Sauri y Sabater; 1896.
- Speech given in reply to “Los Sistemas filosóficos y el criterio médico” (Philosophical systems and medical judgement), a speech given by José Roquer y Casadesúsa at the Reial Acadèmia de Medicina i Cirurgia of Catalonia. Barcelona: Establecimiento Tipográfico de F. Sánchez; 1897.
- Hipnotismo y sugestión. Estudio crítico, aplicaciones a la terapéutica, a la medicina legal y a la pedagogía (Hypnotism and suggestion. A critical study, applications to treatment, legal medicine, and pedagogy). Illustrations by F. Laureano. Barcelona: Espasa y Cia.; 1898.
- Sebastià. Barcelona: La Renaixensa; 1899.
- Retales (Remnants). La Vanguardia, 7 May 1905. p. 6-7.
- Dr. Robert. Biographical speech. Homage session on 10 December 1902, Reial Acadèmia de Medicina i Cirurgia of Catalonia. Barcelona: F. Sánchez; 1903.
- Cartas de un tísico a otro (Letters from a consumptive patient). Barcelona: E. Puig; 1906.
- Un invento desparpanante (A breathtaking invention). Illustrated by R. Opisso and A. Gual. Hojas selectas (Selected pages). 1906;53:425-31.
- El Radium. Speech given in reply to the presentation by Pedro Genové y Soler at the ceremony for his designation as academy member. Reial Acadèmia de Medicina i Cirurgia of Catalonia. Barcelona: La Academia; 1906.
- El doctor Storm (novel). Barcelona: Marín; 1909.
- El arte más difícil (The most difficult art). Barcelona: Manuel Marín; 1909.

Roviralta, 17 years his junior. The latter was a brilliant scientist and the founder of Spanish and Catalan clinical neurology. He was known for his wisdom, humility, and modesty. In 1922, 57 years after Bertrán Rubio, Barraquer Roviralta joined the Reial Acadèmia de Medicina i Cirurgia of Catalonia; at the time, its members included such academically and professionally prestigious physicians as Cardenal, Fargas, Ribas, Suñé, and Molist.

He was also a contemporary of Artur Galceran i Granés (1850-1919), who in 1911 founded and became first president of the Barcelona Society of Psychiatry and Neurology, the first neurological society in Catalonia and Spain.¹³⁻¹⁶

Conclusions

Dr Eduardo Bertrán Rubio was a pioneer in the use of medical electrotherapy in Spain. He was also one of the

precursors of a new medical specialty: neurology. He was born 17 years before Dr Luis Barraquer Roviralta.

He joined the Reial Acadèmia de Medicina i Cirurgia of Catalonia in 1865 and was the first physician to be registered in the academy as neurologist and electrotherapist. He died in Barcelona on 28 June 1909.

One of the greatest distinctions of the Catalan Society of Neurology, recognising the professional careers of its members, bears his name.

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Conflict of interests

The author has no conflicts of interest to declare.

References

- Balcells Riba M. La Neurología en Cataluña hasta 1949. In: Bermejo Pareja F, García-Albea E, Acarín Tusell N, Chacón Peña JR, eds. La Neurología Española al final del milenio. Historia y porvenir. Barcelona: Uriach; 1999. p.37-59.
- Balcells Riba M. Historia general de la neurología. Esplugues de Llobregat: Grupo Saned; 2009.
- Rodríguez Arias B. Eduardo Bertrán y Rubio y la neurología de su tiempo (1865). *An Med Cir.* 1971;51:265-9.
- Bertrán Rubio E. Electroterapia. Métodos y procedimientos de electrificación. Barcelona: Establecimiento Tipográfico de Jaime Jepús; 1872.
- Raposo IV, Fernandez RC, Martínez AR, Sáez AR, Chouza MI, Barcia MS. La fisioterapia en España durante los siglos XIX y XX hasta la integración en escuelas universitarias de fisioterapia. *Fisioterapia.* 2001;23:206-17.
- Arboix A. La faceta neurológica del Dr. Robert (1842-1902), el maestro de Barraquer Roviralta. *Neurosci Hist.* 2014;2:106-11.
- Martí-Vilalta JL. El doctor Bartomeu Robert. En: Martí-Vilalta JL (ed). *El Doctor Robert.* Barcelona: Fundació Uriach 1838; 2004. p.7-14.
- Barraquer Bordas L. Lluís Barraquer Roviralta (1855-1928) fondateur de la neurologie clinique catalane et espagnole. *History of Neurology. Cogito.* 1989;1:65-71.
- Arboix A. Una aproximación histórica a la personalidad del Dr. Luí Barraquer Roviralta (1855-1928). *Neurosci Hist.* 2016;4:39-42.
- Arboix A, Fabregas MG. Las primeras sociedades neurológicas catalanas y sus protagonistas. *Neurologia.* 2012;27:112-18.
- Zarranz JJ. Luí Barraquer Roviralta. *Neurosci Hist.* 2014;2:34-7.
- Martí-Vilalta JL. Martí-Fàbregas J, Delgado R, Martínez S. Lluís Barraquer i Roviralta. Fundador de la neurologia catalana. In: Arboix A, Gironell A, de Fàbregues O, Font MA, Izquierdo J, Krupinski J, Martínez i Neus Fabregat S, eds. *Història de la neurologia catalana.* Societat Catalana de Neurologia. Barcelona: CPM Associados SL; 2011. p.79-87.
- Fàbregas Camps MG. Història de la Neurologia a Catalunya. De l'any 1882 a l'any 1949 [doctoral thesis]. Barcelona; Universitat Autònoma de Barcelona; 1992.
- De Fàbregues O. El pilars de la neurologia catalana: Eduardo Bertran Rubio. *Neurologia Catalana,* 2018;36:56-8.
- Eduard Bertran i Rubio. Galeria de metges catalans. Col·legi de metges de Barcelona. Unitat d'estudis acadèmics. Available from: <http://www.galeriametges.cat/galeria-fitxa.php?icod=EDJE>
- López-Rodríguez AF. Historia de la electroterapia en España durante el siglo XIX: la obra electroterapéutica de Eduardo Bertrán Rubio [doctoral thesis]. León: Departamento de Educación Física y Deportiva de la Universidad de León; 2011.