



Alix Joffroy (1844–1908)

Hélio Afonso Ghizoni Teive^{1,2} · Léo Coutinho² · Francisco M. Branco Germiniani^{1,2} · Carlos Henrique Ferreira Camargo² · Olivier Walusinski³

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Jean-Martin Charcot (1825–1893), regarded as the father of modern neurology, served as a physician at La Salpêtrière Hospital from 1862 to 1893 [1]. In 1882, he was appointed to the newly established chair of diseases of the nervous system, a position he held for 11 years. During his 31-year tenure at La Salpêtrière, Charcot supervised 33 interns, including six who would become heads of clinic: Gilbert Ballet (1853–1916), Pierre Marie (1853–1940), Georges Gilles de la Tourette (1857–1904), Georges Guinon (1859–1932), Adolphe Dutil (1862–194?), and Joseph Babinski (1857–1932) [2]. Among this distinguished group, Alix Joffroy (1844–1908) was particularly notable. This article highlights his life and career, emphasizing Joffroy's landmark contributions to neurology and neuropsychiatry, mainly in collaboration with Charcot, his mentor [2–5].

Alix Joffroy (Fig. 1) was born on December 16, 1844, in Stainville, Meuse, France. He entered medical school in 1863 and joined Charcot's department as an intern in 1869 [2, 5]. Due to a great interest in pathological anatomy, Joffroy further trained in Berlin under Rudolf Virchow (1821–1902) in 1870 [2, 5]. However, his stay was cut short by the outbreak of the Franco-Prussian War, prompting his return to Paris to serve in the ambulance service during several battles and throughout the tumultuous period of the Paris Commune [6].

Joffroy defended his thesis on hypertrophic cervical pachymeningitis in 1873, with Charcot presiding over the

examination committee. Joffroy later became the head of Charles Laségue's (1816–1883) clinic between 1874 and 1878, and in 1878, won a competitive appointment at La Salpêtrière [3]. By 1884, Joffroy was leading the neurology department at the Bicêtre Hospital, and from 1885 to 1893, he coordinated the second neurology unit, the "*petit service*," also known as "Jacquart," at La Salpêtrière [2, 3, 5].

After Charcot died in 1893, Joffroy took over as chair of mental illness at Saint-Anne Hospital in Paris. His career was marked by a prolific scientific output, having authored over 40 publications. He chaired the Medical Society of Paris Hospitals in 1901 and founded an experimental psychology laboratory in 1897, modeled after the lab Charcot had established for Pierre Janet [3]. Joffroy passed away in Paris on November 13, 1908 [3, 5].

Joffroy's thesis, titled "*De la pachyméningite cervicale hypertrophique—d'origine spontanée*" (1873), provided a classical description of hypertrophic cervical pachymeningitis, marking one of his important contributions to neurology under the mentorship of Charcot (Fig. 1) [2–5, 7]. The panel for his thesis defense included Charcot as chair, alongside Apollinaire Bouchardat (1809–1886), Simon-Emmanuel Duplay (1836–1924), and Ernest Henri Philippe Édouard Lecorché (1830–1905) [3].

In his thesis, Joffroy detailed the inflammatory meningeal lesions resulting from different causes, including tuberculosis, tabes, meningeal hemorrhages, and syringomyelia. He discussed the compression of the cervical spinal cord and its consequences, such as peripheral muscular atrophy, which mimics progressive spinal muscular atrophy [2, 3].

Today, the understanding of such conditions has evolved with the identification of immunoglobulin G (IgG)–4-related disease, a polyclonal lymphoproliferative disorder that can affect multiple systemic organs. In the nervous system, this condition may manifest as hypertrophic pachymeningitis, which includes both hypertrophic cervical pachymeningitis and hypophysitis [8].

In 1869 and 1870, Joffroy and Charcot characterized a condition they termed "progressive muscular atrophy,"

✉ Léo Coutinho
leocoutinho23@hotmail.com

¹ Movement Disorders Unit, Neurology Service, Internal Medicine Department, Hospital de Clínicas, Federal University of Paraná, Curitiba, PR, Brazil

² Neurological Diseases Group, Postgraduate Program in Internal Medicine, Department of Internal Medicine, Hospital de Clínicas, Federal University of Paraná, Léo Coutinho, Rua General Carneiro, 181, Alto da Glória, Curitiba, PR 80060-900, Brazil

³ Private Practice, Brou, France

Fig. 1 Alix Joffroy and his doctoral thesis – “De la pachyméningite cervicale hypertrophique (d’origine spontanée)”. Reproduced from personal archives of Walusinski, 2025



attributing its origin to the spinal cord. Their findings were published in *Archives de Physiologie Normale et Pathologique* [9, 10]. This disease was subsequently described as “amyotrophic lateral sclerosis” (ALS) in 1874 following Charcot’s comprehensive anatomical-pathological examination [1]. Since then, the disease has been referred to as Charcot disease, highlighting the contribution of Joffroy [2, 3, 5, 9].

Joffroy also described a sign in patients with thyroid ophthalmopathy characterized by the absence of forehead creases on superior gaze [3–5].

In neurology, his work primarily focused on neuropathology and neuromuscular diseases, notably in his well-regarded research on ALS [2–5]. Joffroy invested further efforts in neuropsychology and neuropsychiatry, areas where he applied the classical anatomical-clinical method pioneered by Charcot. He published works such as “*La méthode anatomo-pathologique en médecine mentale*” (1893), underscoring the importance of neuropathological approaches in psychiatry [2, 4]. After the death of Benjamin Ball (1833–1893), Charcot endorsed Joffroy to succeed him as chair of mental and brain diseases, a position he held from 1893 until his death in 1908 [5].

Alix Joffroy, a distinguished intern and pupil of Charcot, made substantial contributions to medical science during his career. He held pivotal roles in neurology, neuropsychology, and neuropsychiatry, and influenced these fields through his extensive research and clinical practice. Joffroy’s noteworthy publications on hypertrophic cervical pachymeningitis and his collaborative efforts in defining ALS testify to his scientific acumen. His work parallels that of Charcot’s other acclaimed pupils and deserves greater recognition and visibility within

the biomedical community, particularly in medical history discussions.

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Declarations

Conflicts of interest There is no conflict of interest to declare.

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