



# The expulsion of Augusta Dejerine-Klumpke from the Salpêtrière Hospital: Pierre Marie's revenge

## *A expulsão de Augusta Dejerine-Klumpke do hospital Salpêtrière: a vingança de Pierre Marie*

Igor Vieira de Vieira<sup>1</sup> Emerson Luis Batista Filho<sup>1</sup> Matheus Gomes Ferreira<sup>2</sup>   
 Carlos Henrique Ferreira Camargo<sup>2</sup> Léo Coutinho<sup>2,3</sup> Olivier Walusinski<sup>4</sup>   
 Hélio Afonso Ghizoni Teive<sup>2,3</sup>

<sup>1</sup> Universidade Federal do Paraná, Faculdade de Medicina, Curitiba PR, Brazil.

<sup>2</sup> Universidade Federal do Paraná, Hospital de Clínicas, Programa de Pós-Graduação em Medicina Interna, Curitiba PR, Brazil.

<sup>3</sup> Universidade Federal do Paraná, Hospital de Clínicas, Serviço de Neurologia, Unidade de Distúrbios de Movimento, Curitiba PR, Brazil.

<sup>4</sup> Brou, France.

Address for correspondence Léo Coutinho  
 (e-mail: leocoutinho23@hotmail.com).

Arq. Neuropsiquiatr. 2022;80(9):970–972.

### Abstract

Augusta Dejerine-Klumpke was ahead of her time, with extensive contributions to the field of neuroanatomy and neurology, achieving international recognition. Despite her great contribution to world neurology, she was expelled from the Salpêtrière hospital in 1917, due to the rivalry and mutual hatred between Pierre Marie and his rival Jules Déjerine, her husband and collaborator.

### Keywords

- ▶ Neurology
- ▶ Neurosciences
- ▶ Neuroanatomy
- ▶ History
- ▶ History of Medicine

### Resumo

Augusta Dejerine-Klumpke era uma pessoa à frente de seu tempo, com extensas contribuições para o campo da neuroanatomia e neurologia, alcançando reconhecimento internacional. Apesar de sua grande contribuição para a neurologia mundial, ela foi expulsa do hospital Salpêtrière em 1917, devido à grande rivalidade e ódio mútuo entre Pierre Marie e seu rival Jules Dejerine.

### Palavras-chave

- ▶ Neurologia
- ▶ Neurociências
- ▶ Neuroanatomia
- ▶ História
- ▶ História da Medicina

## INTRODUCTION

At the end of the 19th century, Paris became the worldwide center of neurology, with the Salpêtrière hospital being considered the Mecca of neurology, under the leadership of Jean-Martin Charcot (1825–1893).<sup>1</sup>

In the same period, a new prolific researcher appeared in Paris, Jules Joseph Dejerine (1849–1917).<sup>1–3</sup> A disciple of Alfred Vulpian (1826–1887), who was a longtime collaborator and friend of Charcot's, Dejerine worked at the *Bicêtre* before his admittance to the Salpêtrière in 1887, after Charcot

received  
 April 10, 2022  
 accepted  
 July 17, 2022

DOI <https://doi.org/10.1055/s-0042-1756343>.  
 ISSN 0004-282X.

© 2022. Academia Brasileira de Neurologia. All rights reserved.  
 This is an open access article published by Thieme under the terms of the Creative Commons Attribution-NonDerivative-NonCommercial-License, permitting copying and reproduction so long as the original work is given appropriate credit. Contents may not be used for commercial purposes, or adapted, remixed, transformed or built upon. (<https://creativecommons.org/licenses/by-nc-nd/4.0/>)  
 Thieme Revinter Publicações Ltda., Rua do Matoso 170, Rio de Janeiro, RJ, CEP 20270-135, Brazil



**Figure 1** Jules Dejerine (1849–1917) and Augusta Dejerine-Klumpke Déjerine (1859–1924). Source: The Wellcome Collection. Licensed under CC by 4.0.

accepted a request from Vulpian.<sup>1–3</sup> Dejerine's strong personality led him to behave as an intellectual and scientific rival for Charcot and his disciples, especially concerning one of his most faithful pupils: Pierre Marie (1853–1940),<sup>1–6</sup> competing for academic influence within different areas of neurology.<sup>1–3,6</sup> This rivalry involved Jules Dejerine's wife, Augusta Dejerine-Klumpke (1859–1927).<sup>1–3,6–11</sup>

In this historical report, we discuss the expulsion of Augusta Dejerine-Klumpke of the Salpêtrière in 1917, after approval by Pierre Marie, as head of the chair Clinics of Diseases of the Nervous System.

## AUGUSTA DEJERINE-KLUMPKE

Augusta Marie Klumpke, born in San Francisco, USA, with parents who emigrated from Germany, settled in Paris, where she was one of the first women to graduate in medicine and then intern at Vulpian's neurology service, at the *Bicêtre* hospital.<sup>7–14</sup> There, she met Jules Joseph Dejerine (1849–1917), whom she married in 1888, and with whom she began an intense scientific production in the areas of neuroanatomy and neurology. She became known internationally as Augusta Dejerine-Klumpke (→ **Figure 1**).<sup>7–14</sup>

Partnering with her husband, she produced works of great relevance such as the book "Anatomie des Centres Nerveux," in which she described and illustrated the projection fibers and fibers of association between the different locations of the central nervous system. She also contributed to Dejerine's famous publication, entitled "Sémiologie des affections du système nerveux."<sup>6–8,10–14</sup> The couple also described several diseases of the central and peripheral nervous systems, such as aphasia, alexia, agraphia, the Klumpke plexopathy (involvement of the C8–T1 roots of the brachial plexus), cases of meningoradiculitis, and inflammatory demyelinating polyradiculoneuropathy.<sup>6–8,10–14</sup>

Despite being recognized by her husband as a great ally in the production of his works, as a female doctor in the 19<sup>th</sup> century and a foreigner, many colleagues did not look on her kindly.<sup>9,10,13,14</sup> However, with the influence she had over the years, as one of the pioneers in French neurology, she paved the way for other women to enter this field and made history



**Figure 2** Pierre Marie (1853–1940). Photograph by Eugene Pirou. Source: The Wellcome Collection. Licensed under a public domain mark.

as the first woman to preside over the French Society of Neurology in 1914. She published 56 articles during her career and received several distinctions, such as the Godard prize from the Academy of Medicine for her study on the Klumpke plexopathy, and the title of Chevalier de la légion d'honneur, for her work during the war.<sup>6,7,9,10,14</sup>

## THE INCIDENT EXPLAINED

As Roch-Lecours described in his 1999 article, the rivalry between Pierre Marie (→ **Figure 2**) and Jules Dejerine was notorious.<sup>15</sup> After Charcot's death in August 1893, the provisional head of the neurology service at the Salpêtrière hospital was Édouard Brissaud (1852–1909), until the approval by public tender of Fulgence Raymond (1844–1910), both disciples of Charcot's, though Raymond was also a disciple of Vulpian). Raymond remained as head of the Department of Diseases of the Nervous System until 1910, when he died. In the same year, a new public contest was instituted, and Dejerine was chosen as the new head, defeating Pierre Marie.<sup>1–3,5,6</sup>

This fact escalated the rivalry between Marie and Dejerine, which was already quite evident with the famous duels between them, including the so-called debate of aphasias in Paris, which occurred in the year 1908.<sup>1,6,15–18</sup>

In the year 1917, Dejerine died, and a new competition was opened to choose the new head of Chair of Diseases of the Nervous System at the Salpêtrière hospital, with the selection of Pierre Marie. The doctor remained as head of Clinics of Diseases of Nervous System, of the Salpêtrière from 1917 to 1925, when he retired.<sup>1–3,5,6,18</sup>

## THE EXPULSION OF AUGUSTA DEJERINE-KLUMPKE FROM THE SALPÊTRIÈRE HOSPITAL

In 1917, at last, Pierre Marie returned to the Salpêtrière as head of the neurology service; 24 years after Charcot's death, the school he had created returned to power.<sup>1,5,6,18</sup> Due to Pierre Marie's difficult and sometimes irascible temperament, shortly after his return to the Salpêtrière and the beginning of his activities as head of the neurology service, he immediately determined that Dejerine's widow, Augusta Dejerine-Klumpke, should be expelled from the hospital, giving a period of 2 weeks for this action to be accomplished.<sup>5,11,17</sup>

Although little is known about the expulsion itself, it is established that the trigger for the expulsion was, allegedly, economical: as France was devastated at the end of World War I, the Salpêtrière could no longer afford the costly facilities of Madame Dejerine.<sup>6</sup> Marie disfavored the Dejerine couple, as both were Vulpien's students, had no neurological training at the Salpêtrière, and Marie opposed the ideas on aphasia localization that the Dejerines defended.<sup>1-3,5,6,10,14,16-18</sup>

In addition to professional rivalries, there is unproven evidence that antagonism of social classes played a role in this schism, since Pierre Marie was from the French *bourgeoisie*, upper middle class, married to a woman from a wealthy family, while Dejerine was related to modest peasants from Switzerland.<sup>3,5,6,11,14,15</sup>

After her expulsion, Madame Dejerine-Klumpke was aided by her friend Maurice Letulle (1853–1929), Pierre Marie's successor to the chair of pathological anatomy, who stored her collection in his department. Later, Madame Dejerine and her daughter, Yvonne Sorrel-Dejerine (1891–1986), created a fund to maintain the collection and established The Dejerine Foundation in 1920, dedicated to the preservation of the Dejerine legacy, and fostering neurological research and education.<sup>19</sup>

Augusta Dejerine-Klumpke was ahead of her time, providing outstanding contributions in the field of neurology and achieving international recognition.<sup>7-12</sup> Despite an accoladed career, she was expelled from the Salpêtrière in 1917 due to the rivalry and hatred between Pierre Marie and Jules Dejerine, her husband and collaborator.<sup>7-12,17</sup> For Pierre Marie, with his hostile temper, the Neurology Service at the Salpêtrière had finally returned to its Charcotian hosts.

### Authors' Contributions

IVV, ELBF, MGF, CHFC: conceptualization; investigation; writing of the original draft; LC, OW, HAGT: investigation; writing; review & editing.

### Conflict of Interest

The authors have no conflict of interests to declare.

### References

- Goetz CG, Bonduelle M, Gelfand T. Charcot: Constructing Neurology. New York: Oxford University Press; 1995:305–332
- Kondo GK, Schramm CC, Novaes MRR, Teive HAG. Jules Joseph Dejerine: an outstanding neurologist and Charcot's enemy. *Arq Neuropsiquiatr* 2018;76(05):352–354
- Broussolle E, Poirier J, Clarac F, Barbara JG. Figures and institutions of the neurological sciences in Paris from 1800 to 1950. Part III: neurology. *Rev Neurol (Paris)* 2012;168(04):301–320
- Mathis S, Vallat JM. Jules Dejerine and the peripheral nervous system. *Neurology* 2017;89(06):611–615
- Goetz CG. Pierre Marie: gifted intellect, poor timing and unchecked emotionality. *J Hist Neurosci* 2003;12(02):154–166
- Paciaroni M, Bogousslavsky J. Jules Joseph Déjerine versus Pierre Marie. *Front Neurol Neurosci* 2011;29:162–169
- Berhoune NN, Thobois S, Gobert F, Campean L, Broussolle E. Augusta Dejerine-Klumpke (1859–1927): an extraordinary neurologist and an inspiration for all women in medical careers. *Pediatr Neurol* 2014;50(06):547–548
- Bajada CJ, Banks B, Lambon Ralph MA, Cloutman LL, Cloutman LL. Reconnecting with Joseph and Augusta Dejerine: 100 years on. *Brain* 2017;140(10):2752–2759
- Bogousslavsky J. The Klumpke family—memories by Doctor Déjerine, born Augusta Klumpke. *Eur Neurol* 2005;53(03):113–120
- Nogueira EAG, Carvalho VM, Queiroz MV, Rosa GR, Fragoso YD. Augusta Marie Déjerine-Klumpke: much more than just Déjerine's wife. *Arq Neuropsiquiatr* 2018;76(02):117–119
- Poirier J. Augusta Dejerine-Klumpke (1859–1927): Pionnière de la médecine et féministe exemplaire. Éditions Montceaux-les-MeauxReims, France 2019:319
- Balakrishnan VS. Augusta Dejerine-Klumpke. *Lancet Neurol* 2018;17(11):936–939
- Schurch B, Dollfus P. The 'Dejerines': an historical review and homage to two pioneers in the field of neurology and their contribution to the understanding of spinal cord pathology. *Spinal Cord* 1998;36(02):78–86
- Fardeaux M. Passion neurologie, Jules et Augusta Dejerine. Paris: Odile Jacob; 2017
- Roch Lecours A. [Aphasia: debates]. *Rev Neurol (Paris)* 1999;155(10):833–847
- York GK III. Localization of language function in the twentieth century. *J Hist Neurosci* 2009;18(03):283–290
- Brais B. The third left frontal convolution plays no role in language: Pierre Marie and the Paris debate on aphasia (1906–1908). *Neurology* 1992;42(3 Pt 1):690–695
- Almeida GM, Germiniani FMB, Teive HAG. The seminal role played by Pierre Marie in Neurology and Internal Medicine. *Arq Neuropsiquiatr* 2015;73(10):887–889
- Mikol J, Seilhean D. The Dejerine foundation. *Clin Neuropathol* 2018;37(04):193–196