

Augusta Marie Déjerine-Klumpke: much more than just Déjerine's wife

Augusta Marie Déjerine-Klumpke: muito mais do que apenas a esposa de Déjerine

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ABSTRACT

Augusta Marie Déjerine-Klumpke (1859-1927) was a formidable neurologist, neuroanatomist and researcher in France. One of the first women to be accepted for medical internship, externship and research in Paris, Augusta made her name studying and teaching anatomy, histology and dissection, attending clinical activities in neurology, obstetrics, pediatrics and neurologic trauma, performing necropsies, and writing scientific papers and book chapters. Her main research in neurology awarded her an eponym for the avulsion of the lowest root of the brachial plexus (Klumpke's palsy). Married to her professor, the remarkable Dr. Joseph Jules Déjerine, Augusta continued her career and became the first female president of the French Society of Neurology.

Key words: brachial plexus neuropathies; neurology; history.

RESUMO

Augusta Marie Déjerine-Klumpke (1859-1927) foi uma formidável neurologista, neuroanatomista e pesquisadora na França. Uma das primeiras mulheres aceitas para estágios médicos internos e externos ao hospital, e pesquisa em Paris, Augusta fez seu nome estudando e ensinando anatomia, histologia e dissecação, participando de atividades clínicas em neurologia, obstetria, pediatria e trauma neurológico, participando de necrópsias, e escrevendo artigos científicos e capítulos de livros. Sua principal pesquisa em neurologia lhe rendeu um epônimo para a avulsão da raiz inferior do plexo braquial (paralisia de Klumpke). Casada com seu professor, o notável Dr. Joseph Jules Déjerine, Augusta continuou sua carreira e se tornou a primeira mulher presidente da Sociedade Francesa de Neurologia.

Palavras-chave: neuropatias do plexo braquial; neurologia; história.

A female physician in the late 1800s must have had a difficult time establishing her place in professional circles. A female neurologist and neuroanatomist who was married to a famous professor at Salpêtrière (who happened to be her teacher) must have had an even harder task.

Augusta Déjerine-Klumpke (1859-1927) was born in San Francisco, California, USA. She was the second of the six children of John Klumpke, an English business man, and Dorothea, his American wife^{1,2}. Following medical advice after her eldest child was diagnosed with severe osteomyelitis, Dorothea moved to Germany with her children for a couple of years³. They then returned to the USA, but Dorothea and John subsequently divorced and Dorothea moved back to Germany with the children⁴. During a vacation, Dorothea talked to a Parisian woman, who mentioned that Paris could provide for all the careers that the children might happen to

choose³. Almost on a whim, Augusta's mother moved to Paris with her children².

Augusta could already speak several languages, including French. Inspired by Madeleine Brès, a pioneering woman in the medical profession in France⁴, Augusta decided to be a doctor¹. At that time, women were required to enter medical classes through a separate door, and to sit in a particular section of the classroom, where they were often subjected to verbal abuse from their male classmates⁵.

During her second year as a medical student, Augusta took Professor J.A. Fort's intensive course on anatomy and dissection, and qualified to work as his assistant for the next two years¹. That gave her enough experience to win the Vermeil Medal for free teaching in a contest for an internship in one of the hospitals in Paris. She also worked in Dr. Latteux's histology laboratory at the same time, and on Sunday mornings

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she attended lectures given by Charcot at the Salpêtrière Hospital and by Magnan at the Sainte-Anne Asylum¹.

In 1880, Miss Klumpke was accepted for an internship in Professor Alfred Hardy's unit in the Hôpital de la Charité. Dr. Joseph Jules Déjerine, who would become her husband eight years later, also worked at this hospital. In Augusta Klumpke's own words, the years spent at the Hôpital de la Charité were very interesting: "These years were much more interesting than the mere study of books for preparing an examination"³. For two years, she followed clinical activities and classes, took patients' histories, performed autopsies and was introduced to scientific research³.

In 1882, she became involved in obstetrics and pediatric diseases. During the same year, thanks to Blanche Edwards (another pioneer of French women's rights)⁴, Augusta entered a contest for externships at hospitals in Paris. Blanche and Augusta together became the first women to be accepted for externships in the history of French medicine.

In 1883, Augusta Klumpke began her externship at the Hôtel-Dieu and dedicated her research to radicular palsy of the upper brachial plexus (Erb's palsy). Augusta described a

patient with avulsion of the lowest root of the brachial plexus (T1 level), presenting with ipsilateral Horner's syndrome (the result of concomitant injury to the adjacent sympathetic chain), with paralysis of the small hand muscles (claw hand) and sensory loss along the ulnar side of the forearm. To this day, this syndrome is called "Klumpke's palsy"⁷. Klumpke's palsy may result from a difficult breech delivery or from upper plexus injuries following a violent dislocation between the shoulder and the neck, as seen in motorcycle or car accidents⁶. Augusta Klumpke had her study published in *Revue de Médecine* and won the prestigious Godard prize from the Academy of Medicine^{3,6}.

On July 14, 1888, Augusta married her professor, Déjerine, who was her senior by 10 years. He often said that "she had all the possible positive attributes" (*«Elle a toutes les qualités possibles»*)⁸. Together they made a formidable pair within neurology. Augusta's contributions to Jules Déjerine's textbooks were remarkable, as she was also a skilled illustrator, and she participated in a two-volume textbook of neuroanatomy with her husband. Augusta Déjerine-Klumpke became the first woman to become president of the French

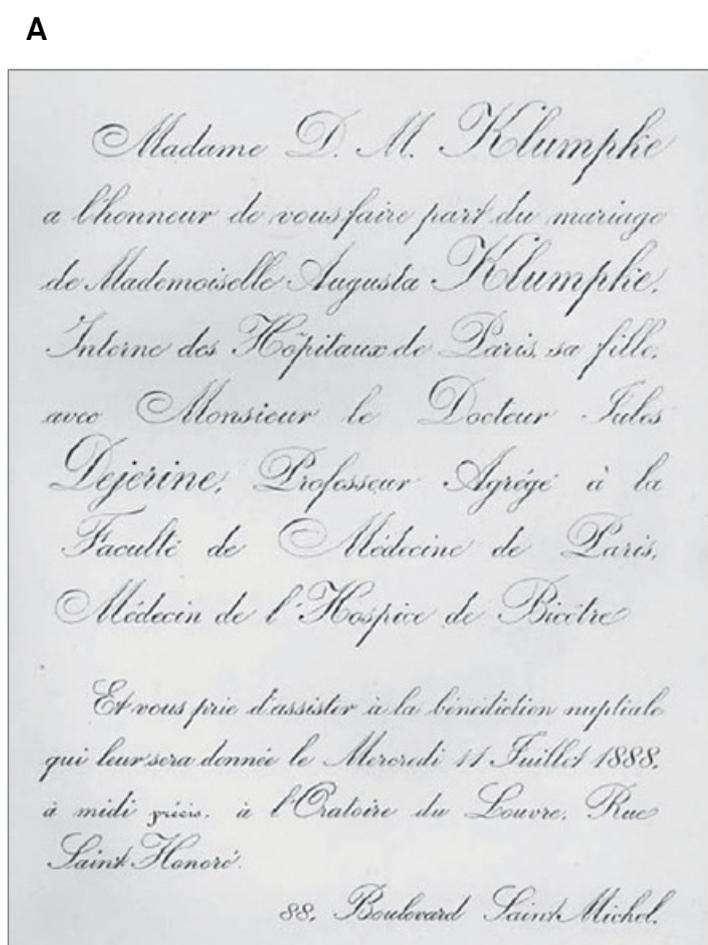


Figure 1. (A) The marriage communication, (B) young Augusta and (C) the Déjerine couple.

Society of Neurology, in 1914³. Figure 1 shows their marriage communication, and photos of the young Augusta and of the Déjerine couple. Figure 2 shows the title page of *Anatomie des Centres Nerveux*, published in 1895 by Jules Déjerine and Madame Déjerine-Klumpke, two schematic drawings made by Augusta Déjerine-Klumpke, and the title page of her thesis.

Ninety years ago, in 1927, Augusta died at the age of 68, after having published 56 articles. She worked fiercely in the treatment and rehabilitation of First World War soldiers who had been neurologically wounded^{3,6,9}. For her work during the war, she was awarded the title of *Chevalier de la Légion d'honneur*. To this day, there is no “Chevalière” title, and women can only be appointed as “Chevaliers”.

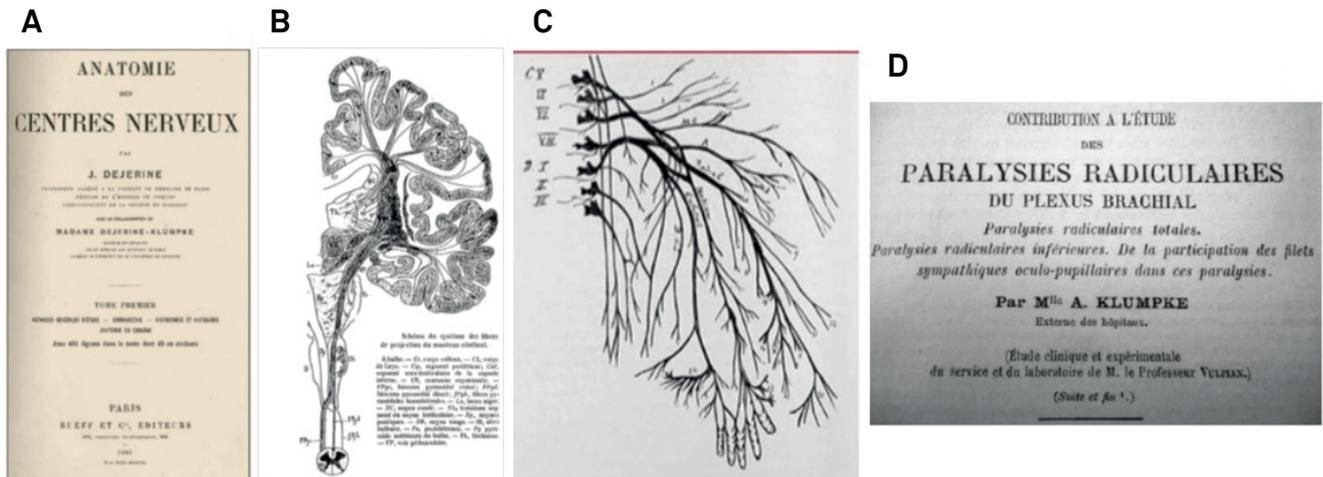


Figure 2. (A) The title page of *Anatomie des Centres Nerveux* published in 1895 by Jules Déjerine and Madame Déjerine-Klumpke; (B) schematic drawings of the projecting fibers to the brain and (C) the anatomy of the brachial plexus, both illustrated by Augusta Déjerine-Klumpke; (D) the title page of Madame Déjerine-Klumpke thesis that covered 295 pages on the anatomy and lesions of the brachial plexus.

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