



Jean-Martin Charcot and Alfred Vulpian: A Remarkably Productive Friendship and Collaboration in the Realm of Medicine

(Historical Note)

Hubert Dechy¹, Marie-Dominique Allen², Peter Allen³

¹ Retired Neurologist and Internist

² Retired Medical Librarian

³ Retired English Professor

Corresponding Author:

Hubert Dechy

E-mail address: hubertdr@aol.com

Abstract

The two ranking physicians were of the same age group. Jean-Martin Charcot (1825-1893) and Alfred Vulpian (1826-1887) closely collaborated at the Paris hospital La Salpêtrière as from 1862 and for eight successive years. The latter then went his own way in various hospitals, the former made his whole career at La Salpêtrière. The clinical and anatomopathological description of recently discovered diseases (a method termed as anatomoclinical) and foreign medical literature made real headway. Medical knowledge was also prompted by publishing lessons and lectures as well as presenting patients. Laboratory research rapidly spread. They were both fully attentive to the scientific Societies to which they became members as later to the national Academies of medicine and sciences.

Keywords:

anatomoclinical method; history of neurosciences; microscope; multiple sclerosis; progressive ataxia; shaking palsy

Introduction

Throughout the first half of the 19th century, the macroscopic anatomy of diseased bodies—autopsied and carefully drawn—was developed. However, this did not allow for a tissue-level study such as that which the microscope, recently perfected by the construction of achromatic lenses, would make possible in the second half of that century. The meeting of two young doctors during their internship in the middle of this century, and their rapid friendship, would be at the origin of an exceptional and complementary collaboration, greatly benefiting the medical discoveries that they would go on to produce throughout their lives, entirely devoted to science.

A Chance Encounter

Appointed through the same competitive examination for the *Internat des Hôpitaux de Paris* in 1848, they served as internes. J.-M. Charcot worked in 1850 at the La Pitié hospital¹ in the medical service of Professor Pierre Adolphe Piorry (1794–1879). A. Vulpian was in this hospital in 1852; yet in his 1887 speech, J.-M. Charcot recalled their meeting 37 years earlier in that hospital and the fact that they became friends (Charcot 1887). They did not know that a few years later, after being appointed *professeurs agrégés*, they would become heads of two neighboring medical services at La Salpêtrière in early 1862. As J.-M. Charcot emphasized in his speech to the *Académie des sciences* upon the death of Alfred Vulpian:

“My colleague, at that time already, was attached to the *Muséum d’Histoire naturelle* as an assistant-preparer under Flourens,² under the direction of M. Philipeaux.³ ... One sees that from the very beginning of his career, Vulpian had to divide his activity between the laboratory and the hospital ward... One can say that the great hallmark of Vulpian’s scientific life lies in this intimate union of the physician and the experimenter. Thus he must be considered one of the founders, one of the principal promoters of this method... which recognizes and proclaims loudly the superior rights of the clinic; it alone can safely guide the movement leading to the scientific renewal of Medicine through Physiology.” (Charcot 1887).

¹ The former *Hôpital de La Pitié*, rue Lacépède in the 5th arrondissement of Paris.

² Professor Pierre Flourens (1794–1867), physician and physiologist, renowned for his research on the nervous system at the *Muséum d’Histoire naturelle* in Paris.

³ Dr. Jean-Marie Philipeaux (1809–1892) was a friend of Alfred Vulpian’s impoverished family. Vulpian had lost his father at the age of three and had to work to support his mother and six siblings, hence the recommendation for a paid position at the *Muséum d’Histoire naturelle*, where J.-M. Philipeaux was assistant to Professor Pierre Flourens. A. Vulpian would serve as preparer from 1850 to 1867. For the same reason, he also taught natural sciences for many years at the *Collège municipal Chaptal*.

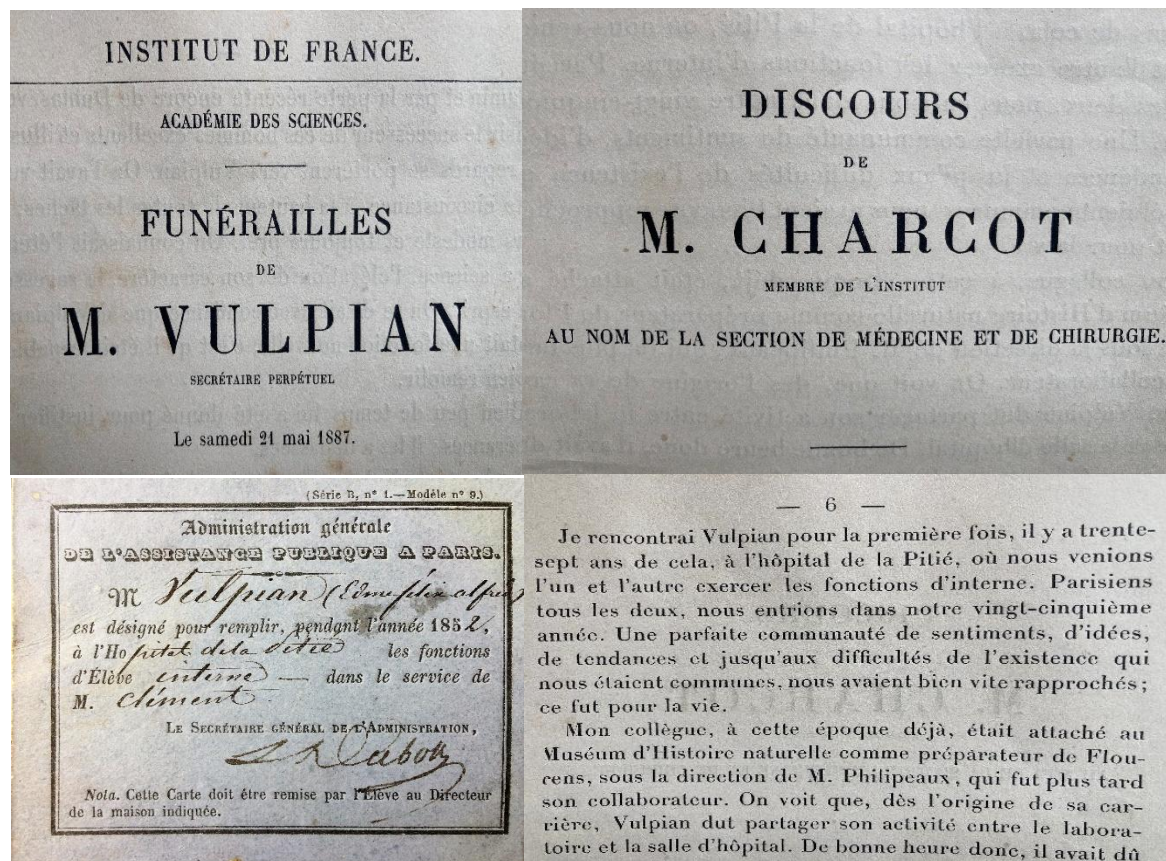


Figure 1. J.-M. Charcot's speech at the *Académie des sciences* [Academy of Sciences] and, at lower left, the appointment card of A. Vulpian as intern at the *Hôpital de La Pitié* in 1852. (Family Archives)

Thus, if J.-M. Charcot had received training in the use of the microscope during his internship rotations, he had not spent months in a research laboratory with animals, which he would have respected too much to sacrifice at the end of physiological experiments, as A. Vulpian did at the *Muséum d'Histoire naturelle*, studying tissues under the microscope every day. Chance therefore brought together two brilliant clinicians who would work side by side in the mornings at the hospital: one developing his private practice in the afternoons at his home, helped by his former mentor Professor Pierre Rayer (1793–1867), who recommended him to wealthy patients; the other focusing on preparing his lectures at the *Muséum d'Histoire naturelle*, especially when in 1864 he was called upon to substitute for Professor Flourens in the Chair of Comparative Physiology until 1866. That year, he published his comprehensive work *Leçons sur la Physiologie générale et comparée du système nerveux* [Lessons on the General and Comparative Physiology of the Nervous System] (Vulpian 1866a).

Their two doctoral theses in 1853 illustrate these differences: J.-M. Charcot focused on *La goutte et les rhumatismes chroniques* [Gout and Chronic Rheumatisms] (Charcot 1853), while A. Vulpian chose an *Essai sur l'origine de plusieurs paires des nerfs crâniens (3e au 10e)* [Essay on the Origin of Several Pairs of Cranial Nerves (3rd to 10th)], based on anatomical sections of the brainstem viewed under the microscope (Vulpian 1853).

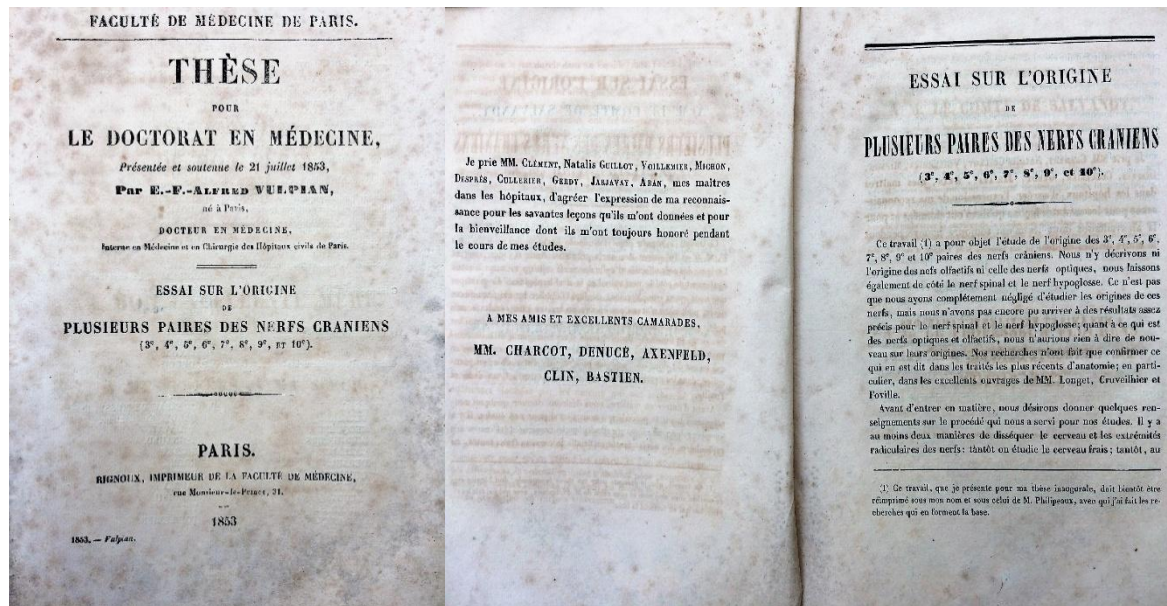


Figure 2. A. Vulpian's thesis, dedicated first to J.-M. Charcot. (Family Archives)

Their Joint Works

Their first joint (co-signed) publication dates from 1853: *Observation de pyélonéphrite avec distension rénale* [Observation of Pyelonephritis with Renal Distension] (Charcot and Vulpian 1853); the following year: *Cas d'ulcères simples de l'estomac, suivis de rétrécissement pylorique et de dilatation stomacale* [Case of Simple Ulcers of the Stomach, Followed by Pyloric Stenosis and Gastric Dilatation] (Charcot and Vulpian 1854a) and *Altération spéciale de la table interne du pariétal gauche, pertes de connaissance et accès épileptiformes dans le côté droit du corps, revenant par accès* [Special Alteration of the Inner Table of the Left Parietal Bone, Loss of Consciousness and Epileptiform Attacks on the Right Side of the Body, Recurring in Episodes] (Charcot and Vulpian 1854b). Later: *Coloration bronzée de la peau dans un cas de phtisie pulmonaire ; altération graisseuse des capsules surrénales* [Bronze Coloring of the Skin in a Case of Pulmonary Phthisis; Fatty Degeneration of the Adrenal Capsules] (Charcot and Vulpian 1857), with their comments:

“As for the adrenal capsules, not only did they show quite pronounced fatty degeneration, but they also no longer contained the chromogenic substance that turns pink under the influence of iodine and other oxidizing agents.”

—later discovered to be the adrenal medulla secreting adrenaline. Three years later came: *Des néo membranes de la dure-mère, à propos d'un cas d'hémorragie méningée* [On Neo-Membranes of the Dura Mater, Concerning a Case of Meningeal Hemorrhage] (Charcot 1860).

As we can see, the two companions were regulars at the *Société de Biologie*, founded in 1848 by Pierre Rayer along with Claude Bernard (1813–1878), François Magendie (1783–1855), Charles-Edouard Brown-Séquard (1817–1894), and Charles Robin (1821–1885), a pioneer in

the use of the microscope. They became members in 1851 (at the age of twenty-five), and the following year of the *Société anatomique de Paris*.

In fact, history would especially remember their descriptions of neurological diseases while they were heads of neighboring services at La Salpêtrière, sharing the same laboratory for microscopic studies after autopsies of female patients. For example:

- *De la paralysie agitante* [On Shaking Palsy] published in *Gazette hebdomadaire de médecine et de chirurgie* in 1861 and 1862 (Charcot 1861-1862), and a printed monography published in 1862 (Charcot and Vulpian 1862a); they paid tribute to James Parkinson, who had described the disease, though the eponym would only be attributed to him a little later.
- *Sur la sclérose en plaques de la moelle épinière* [On Multiple Sclerosis of the Spinal Cord], published in 1866 and signed by A. Vulpian alone (Vulpian 1866) (Figure 3). J.-M. Charcot, in his 1887 speech would say: "... numerous discoveries made by Vulpian... first attempt at a symptomatic description of the disease called multiple sclerosis..." (Charcot 1887); yet Vulpian noted in the article that it was Charcot who proposed the name for the disease (Vulpian 1866b), and later Charcot would describe the forms involving the brainstem and brain, proving that the lesions were identical (Zalc 2018).
- Progressive locomotor ataxia, described together in two successive articles: *Sur un cas d'atrophie des cordons postérieurs de la moelle épinière et des racines spinales postérieures (ataxie locomotrice progressive)* [On a Case of Atrophy of the Posterior Columns of the Spinal Cord and Posterior Spinal Roots (Progressive Locomotor Ataxia)] (Charcot and Vulpian 1862b) and *Sur deux cas de sclérose des cordons postérieurs de la moelle épinière avec atrophie des racines postérieures* [On Two Cases of Sclerosis of the Posterior Columns of the Spinal Cord with Atrophy of the Posterior Roots] (Charcot and Vulpian 1862c). They attempted treatment with silver nitrate but were later disappointed with the results in this condition (Charcot and Vulpian 1862d).

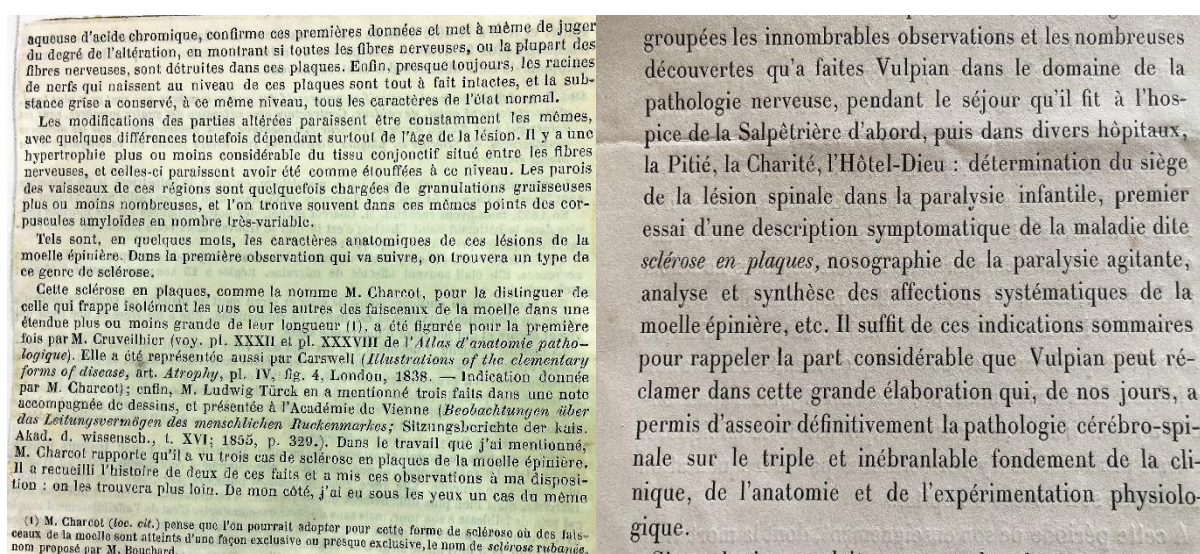


Figure 3. Article by A. Vulpian, « *Sur la sclérose en plaques de la moelle épinière* » [On Multiple Sclerosis of the Spinal Cord], on the left, and clarifications by J.-M. Charcot in his posthumous speech (Charcot 1887). (Family Archives)

This anatomoclinical method, they would also apply in many other fields of medicine, and it would be too long to detail here all of their co-signed works: let us mention those on endocarditis, which they called ulcerative with a typhoid form; on pulmonary abscesses; on an infarction of the wall of the left ventricle with a clot in a coronary artery and rupture into the pericardium; on senile osteomalacia and its frequency in that population of the *Hospice de la Vieillesse-Femmes* [Hospital for Elderly Women] that was La Salpêtrière; and so on.

In addition to their friendly meetings (see below) and alongside the scholarly Societies already mentioned, they attended sessions of the *Académie de médecine* [Academy of Medicine] (Vulpian was elected in 1869, Charcot in 1873), and later also those of the *Académie des sciences* [Academy of Sciences], to which Vulpian was elected in 1876 (appointed Perpetual Secretary in 1886) and Charcot in 1883.

When the Chair of Pathological Anatomy became vacant in 1867, A. Vulpian was appointed to the position despite opposition from the clergy—and no doubt with the help of Charcot, who would say in 1887 after his funeral:

“Now it was necessary, with the eye armed with the microscope, to penetrate into the very intimacy of the organs... Vulpian alone, among the *agrégés* in medicine of the time, was, incontestably, sufficiently prepared by his earlier studies to accept such a heavy responsibility. ...” (Charcot 1887).

In 1872, when A. Vulpian left this chair for that of Experimental Pathology, he entrusted it to J.-M. Charcot!

Only one slight irritation arose between them, in May 1881, when A. Vulpian, then Dean of the Faculty of Medicine since 1875 (his term renewed at the request of his colleagues, including J.-

M. Charcot, in 1880—see Figure 4), was offended by the “political” decision to create a Chair of Nervous System Diseases for J.-M. Charcot without prior consultation of the Faculty. He supported his friend’s candidacy but not bypassing the established hierarchy.

Faculté de Médecine de Paris.

Paris, le 25 Novembre 1850.

Monsieur le Doyen,

Le Conseil Supérieur de l'Instruction Publique devant s'occuper dans un avenir prochain du mode de nomination des Doyens des Facultés, il importe beaucoup à notre Compagnie que vous consentiez à rester à sa tête. Les services que vous avez déjà rendus, à la Faculté, nous font vivement désirer que vous consentiez à conserver le décanat et nous venons vous demander de vous rendre aux vœux de vos Collègues.

C. Larigue
Ruyon
L. Gosselin
H. Baillet
D. Dandz
P. Tanguy
A. Jannin
Thouvenot
Barrot

Bouchard-Dutail
Reynaud
Marecot
Ch. Frérot
Fournier
Savaud
Bouchard
Taccaron

H. Poteau
Garnier
G. Virey
C. Béchard
Dopran
Richet
Cappey
Labrousse
J. Le Fort
Bancel

Figure 4. Letter of support for the renewal of A. Vulpian's position as Dean, signed by his colleagues, including J.-M. Charcot. (Family Archives)

Testimonies of Their Friendship

In the family archives of A. Vulpian's descendants, there exist handwritten letters that bear witness to this closeness—going beyond social conventions—such as being witnesses at each other's weddings, with their wives themselves being friends.⁴

For example, Vulpian wrote to his brother Gustave in 1867 or 1869 that he was expecting him for dinner with the Charcot family, but his brother did not come, fearing the presence of “decorated people”! Earlier, in 1866, he had sent a letter to M. Philippeaux (see footnote n. 3) from Gérardmer (Vosges), where he was on holiday with Charcot and his wife, while he himself was still unmarried. In another letter from the same place, this time to his brother Paul, he mentioned that Mme Charcot was tired and that he had climbed up with Charcot to admire the view over the chalet.

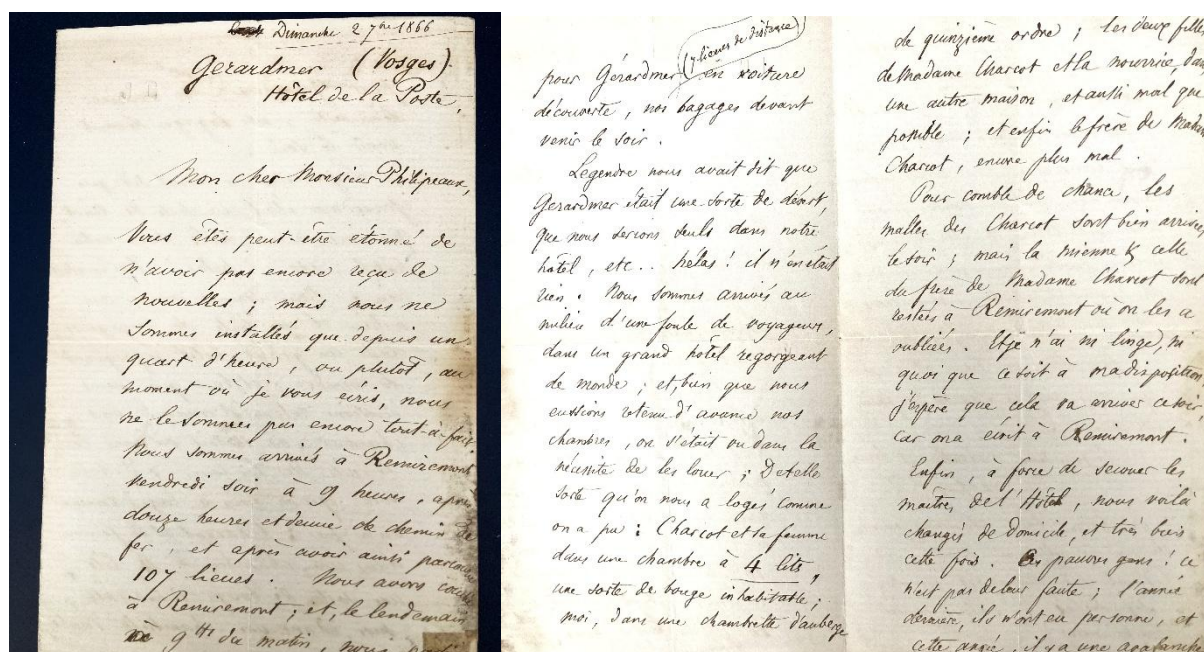
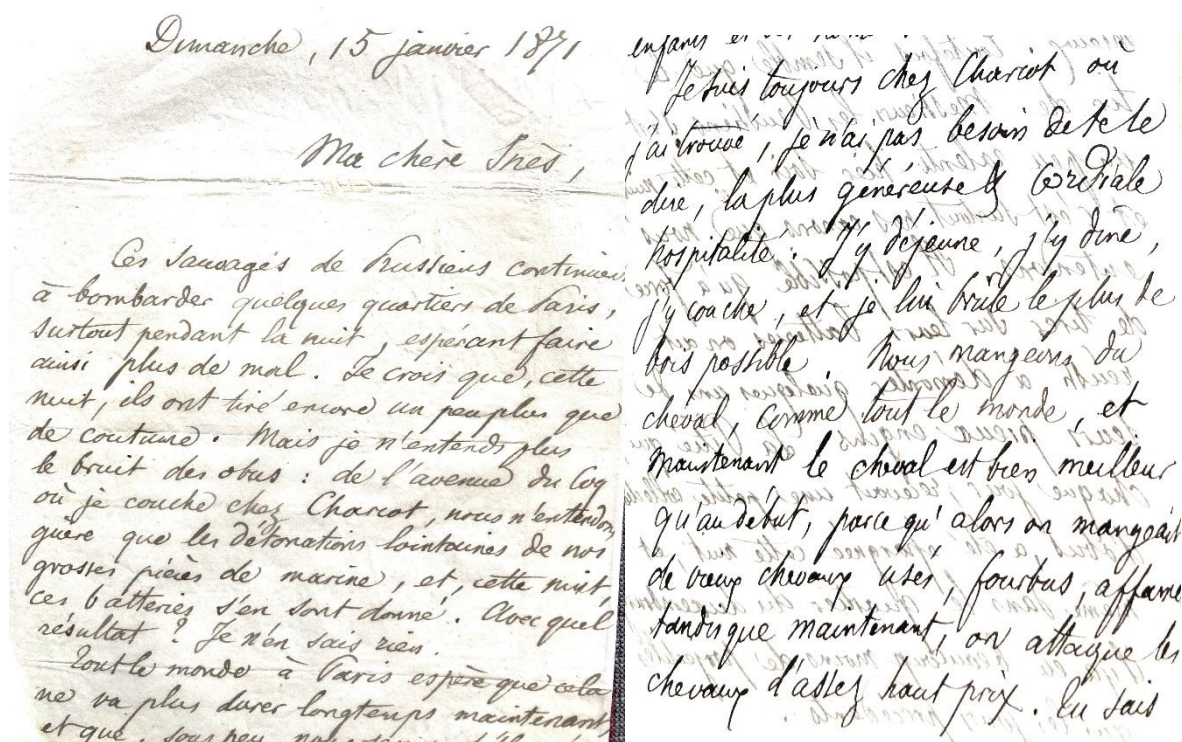


Figure 5. Letters from A. Vulpian, still unmarried, bearing witness to his closeness with the Charcot family, with whom he was on holiday in the Vosges in the summer of 1866. (Family Archives)

During the war of 1870–1871, A. Vulpian sent his pregnant wife to Rennes to escape the siege of Paris by the Prussians and wrote to her *par ballon monté* [by mounted balloon]—meaning the letters left Paris by balloon when the wind blew in the right direction. He informed her that the bombardments in the neighborhood where he lived, near the Panthéon, kept him from sleeping, and that he had gone to live with J.-M. Charcot near the Gare Saint-Lazare, with whom he shared firewood (the winter was very cold, with -12° for several weeks) and horse meat,

⁴ Our thanks to Mme and M. G. de Vulpian, who gave us access to these precious archives, among which are 103 handwritten letters from A. Vulpian to his wife.

since famine reigned as a result of the siege of Paris—soon they would have to make do with rats!



Dimanche, 15 janvier 1871

Ma chère Inès,

Ces sautes de Prussiens continuent à bombarder quelques quartiers de Paris, surtout pendant la nuit, espérant faire ainsi plus de mal. Je crois que, cette nuit, ils ont tiré encore un peu plus que de coutume. Mais je n'entends plus le bruit des obus : de l'avenue du Log où je couche chez Charcot, nous n'entendons que les détonations lointaines de nos grosses pièces de marine, et, cette nuit, ces batteries s'en sont données. Avec quel résultat ? Je n'en sais rien.

Tout le monde à Paris espère que cela ne va plus durer longtemps maintenant, et que, sous peu, nous serons à la

Je suis toujours chez Charcot, où j'ai trouvé, je n'ai pas besoin de te le dire, la plus généreuse & cordiale hospitalité. J'y dîne, j'y soupe, j'y coache, et je lui brise le plus le plus possible. Nous mangeons du cheval, comme tout le monde, et maintenant le cheval est bien meilleur qu'au début, parce qu'alors on mangeait de vieux chevaux usés, fourbus, affamés tandis que maintenant, on attaque les chevaux d'assez haut prix. Tu sais

Figure 6. *Par ballon monté* [By mounted balloon] letters from A. Vulpian to his wife Inès, who had taken refuge in Rennes during the siege of Paris by the Prussians, while she was expecting their first child. (Family Archives)

Conclusion

The second half of the 19th century transformed medical knowledge, shifting from an anatomical description of bodies and the visible signs of disease to their study through post-mortem microscopic analysis, which made it possible to identify characteristic lesions of distinct pathologies. Foreign authors contributed to this revolution, and their writings were studied in Paris. But in this capital, one must praise the friendly partnership of two passionate and complementary physicians, who supported one another in advancing knowledge—above all by working side by side in the same hospital, La Salpêtrière. Just as they also had to live in the same flat (the one of J.-M. Charcot who invited A. Vulpian because the bombs sent by the Prussian troops did not fall there) during the siege of Paris in the winter of 1870–1871. Far from competing, J.-M. Charcot and A. Vulpian showed that unity is strength—in medicine as in other fields.

References

- Charcot JM. *Études pour servir à l'histoire de l'affection décrite sous les noms de goutte asthénique primitive, nodosités des jointures, rhumatisme articulaire chronique (forme primitive), etc.* Thèse pour le doctorat en médecine. Paris: Rignoux; 1853.
- Charcot JM (en collaboration avec M. Vulpian). Des néo membranes de la dure-mère, à propos d'un cas d'hémorragie méningée. *Gaz Hebd Méd Chir.* 1860;1(7):728–821.
- Charcot JM. De la paralysie agitante. *Gaz Hebd Méd Chir.* 1861;8:765–767, 816–820; 1862a;9:54–59.
- Charcot JM. *Discours à l'Académie des Sciences pour les Funérailles de M. Vulpian, samedi 21 mai 1887.* Paris: Firmin-Didot, Imprimerie de l'Institut; 1887. Archives familiales de Vulpian.
- Charcot JM, Vulpian A. Observation de pyélonéphrite avec distension rénale. *C R Soc Biol.* 1853;5:16.
- Charcot JM, Vulpian A. Cas d'ulcères simples de l'estomac, suivis de rétrécissement pylorique et de dilatation stomacale. *C R Soc Biol.* 1854a;6:76.
- Charcot JM, Vulpian A. Altération spéciale de la table interne du pariétal gauche, pertes de connaissance et accès épileptiformes dans le côté droit du corps, revenant par accès. *C R Soc Biol.* 1854b;6:117.
- Charcot JM, Vulpian A. Coloration bronzée de la peau dans un cas de phtisie pulmonaire ; altération graisseuse des capsules surrénales. *C R Soc Biol.* 1857;9:146.
- Charcot JM, Vulpian A. *De la paralysie agitante.* Paris: Victor Masson et fils; 1862a.
- Charcot JM, Vulpian A. Sur un cas d'atrophie des cordons postérieurs de la moelle épinière et des racines spinales postérieures (ataxie locomotrice progressive) [On a Case of Atrophy of the Posterior Columns of the Spinal Cord and Posterior Spinal Roots]. *Gaz Hebd Méd Chir.* 1862b;9:277.
- Charcot JM, Vulpian A. Sur deux cas de sclérose des cordons postérieurs de la moelle épinière avec atrophie des racines postérieures. *C R Soc Biol.* 1862c;3(4):155.
- Charcot JM, Vulpian A. Sur l'emploi du nitrate d'argent dans le traitement de l'ataxie locomotrice progressive [On the Use of Silver Nitrate in the Treatment of Progressive Locomotor Ataxia]. *Bull Thérapeut Méd Chir.* 1862d.
- Vulpian A. *Essai sur l'origine de plusieurs paires des nerfs crâniens (3e, 4e, 5e, 6e, 7e, 8e, 9e et 10e).* Thèse de médecine. Paris: Imprimerie de Rignoux; 1853
- Vulpian A. *Leçons sur la Physiologie générale et comparée du système nerveux faites au Muséum d'Histoire naturelle* [Lessons on the General and Comparative Physiology of the Nervous System, Delivered at the Muséum d'Histoire naturelle]. Paris: Germer Baillière; 1866a.
- Vulpian A. Sur la sclérose en plaques de la moelle épinière. *Union Méd.* May 9, 1866b.
- Zalc B. One hundred and fifty years ago Charcot reported multiple sclerosis as a new neurological disease. *Brain.* 2018;141(12):3482–3488. doi:10.1093/brain/awy307



Specific Statements

Permissions: Authors have been granted access to the Vulpian archive with permission to reproduce some of its documents by Mme and M. G. de Vulpian.

Patient Consent: Not applicable.

Funding: The author received no specific funding for this work.

Conflicts of Interest: The authors declare no conflicts of interest.

Translations: The authors have reviewed and approved the final translation of this article.

Provenance and peer review: Not commissioned; externally peer reviewed. Submitted: September 3, 2025. Received in revised form: September 14, 2025. Accepted: September 18, 2025.

Disclaimer

The content provided on The Charcot Journal website is for informational and educational purposes only. It is not intended as a substitute for professional medical advice, diagnosis, or treatment. Always seek the advice of your physician or other qualified health provider with any questions you may have regarding a medical condition. Never disregard professional medical advice or delay in seeking it because of something you have read on this site. The Charcot Journal and its contributors do not accept any responsibility for any loss which may arise from reliance on information contained on this site.

Terms and Conditions

Unless otherwise stated, all content is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License (CC BY-NC-ND 4.0). You may share the content for non-commercial purposes, provided that (a) proper attribution is given to the original authors and The Charcot Journal; (b) the content is not modified or adapted in any way. Commercial use and the creation of derivative works are not permitted without prior written permission from the copyright holder. Authors retain full copyright and may reuse their own work in any form, including for commercial purposes. The website may contain links to third-party websites. We are not responsible for the content or practices of these external sites. We reserve the right to update or modify these terms at any time without prior notice.