



Obituary

Jules Hardy, MD, OC, CQ (1932–2022)

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Keywords: Jules Hardy; Neurosurgery; Pituitary surgery

Born from humble beginnings in the small town of Sorel, Quebec, on July 16th, 1932, Jules Hardy attended *Collège Jean-de-Brébeuf* for his classical studies. He then obtained his medical degree in 1956 from the University of Montreal. There, he found guidance from Dr Claude Bertrand, an eminent neurosurgeon working at Notre-Dame Hospital. With his mentor's recommendation, he travelled to France where he honed his surgical skills and knowledge under the tutelage of Dr Gérard Guiot, one of the few neurosurgeons using the transsphenoidal approach to the pituitary gland previously abandoned by Dr Harvey Cushing. Dr Hardy developed a particular interest in this innovative surgical approach, with the use of radiofluoroscopic control and cisternal pneumography for intraoperative image guidance. This allowed for a much better visualisation of the supra-sellar contour and a more complete surgical resection, all leading to improved post-operative outcomes.

In 1962, Dr Hardy returned to Montréal, where he began his practice at Notre-Dame Hospital. He was also a consulting neurosurgeon at Montreal's General Hospital and Hôtel-Dieu Hospital, training numerous students, such as Dr Ivan Ciric. The latter was able to spread the wealth of knowledge he learned under Dr Hardy to his American colleagues, further cementing his stature as one of the most internationally recognized figures in pituitary neurosurgery. He obtained full professorship of neurosurgery at McGill University and the University of Montreal, where he was also the neurosurgery program director from 1979 to 1985.

With his tenacious work on pituitary adenomas, Dr Hardy quickly gained immediate international recognition and respect within the neurosurgical community. He built upon the transsphenoidal technique he learned in France, also incorporating the newly popularized operative surgical microscope. Using the higher magnification and better illumination offered by the microscope, and novel microsurgical instruments that he himself developed, this allowed him to distinguish pituitary tumors from normal gland tissue and perform selective gross total resections of tumors. This meant that patients undergoing surgery for pituitary lesions could avoid a total hypophysectomy and the inevitable complication of panhypopituitarism, forever changing the lives of countless patients.

Taking his work one step further, Dr Hardy expanded upon the traditional indications of transsphenoidal surgery, which were typically limited to macroadenomas causing mass effect of the optic apparatus. In 1968, Dr Hardy discovered pituitary microadenomas, small endocrinologically active tumors seen in pathologies such as Cushing's disease. Despite initial skepticism from his peers, Dr Hardy developed selective adenectomy, allowing the preservation of the functioning pituitary gland. This innovative procedure restored fertility in a vast number of sterile women, amongst other benefits. Furthermore, despite having rudimentary technology, by today's standards, Dr Hardy was still able to achieve endocrinological results comparable to that of contemporary pituitary surgeons.

Outside of his ground-breaking work on pituitary surgery, Dr Hardy was also a key figure in introducing and perfecting thalamic recording for movement disorders and microsurgery for trigeminal neuralgia not only in Montreal but also across Canada and North America.

He authored 41 book chapters, and over 160 peer-reviewed manuscripts during his academic career, with over 90% of his publications and research being on neurophysiology and neuroendocrinology. He even drew a giant three-dimensional brain model that was showcased at the "Man and Life" thematic pavilion at the Expo 67 in Montreal.

Dr Hardy's invaluable contribution to the field of neurosurgery was recognized in 1997 in Amsterdam by the World Federation of Neurosurgical Societies' medal of honor, and subsequently in 2012, during the International Society of Pituitary Surgeons' meeting in Montreal.

His international recognition was rewarded by numerous honorary distinctions from various universities and governments of numerous countries. Amongst, in 1974, he received the Order of Merit for sciences and health from the government of Lebanon, and the Queen Elizabeth II Silver Jubilee Medal in 1978. In 1987, he was made Officer of the Order of Canada. He was also honored as Knight of the National Order of Quebec and recipient of the Prix Léo-Pariseau and the Prix Izaak-Walton-Killam in 1989.

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Cite this article: Brunette-Clément T, Moumdjian R, Weil AG, Bojanowski MW, Shedid D, and Yuh S-J. (2024) Jules Hardy, MD, OC, CQ (1932–2022). *The Canadian Journal of Neurological Sciences* 51: 143–144. <https://doi.org/10.1017/cjn.2023.33>

According to one of his dearest pupils, Dr Robert Moundjian: “In addition to his unique curriculum and authority in the field of pituitary surgery, Professor Jules Hardy was an influential member of the Canadian and Quebec societies, having shared the school benches with politicians Robert Bourassa and Pierre-Elliott Trudeau”.

Continuing on a more personal note, Dr Moundjian recalled fond memories of his mentor: “Dr Hardy was an avid reader with great interest in French and English literature. He would not hesitate to call me late in the evening to ask me if I had read anything of interest lately, as I shared his passion for books. He was indeed very cultured and having dinner with him was a unique experience, sharing his wide general knowledge and erudition, with stories about Dr Wilder Penfield, Dr Herbert Jasper, Dr William Vernon Cone, and Dr Claude Bertrand, among others. I have rarely visited a museum or been to a symphony concert in Montreal where I didn't find him sitting there all ears, eyes wide open, imbibing every bit of the cultural and artistic event. Finally, he was undoubtedly a very funny, albeit sarcastic individual. His anecdotes were hilarious and utterly entertaining.”

To the world, Dr Jules Hardy was a Canadian giant of neurosurgery, a pioneer of microsurgery and pituitary surgery. His contribution revolutionized the field and participated in the rebirth and modernization of the transsphenoidal approach now widely used today by all. To many of us here in Montreal, Dr Hardy was even more than that: he was a friend, a mentor, and a cultured, hard-working colleague with whom we share profound professional and personal experiences inside and outside of the hospital. Through his students and trainees, his impact on the neurosurgical landscape, let it be here locally in Montreal or even internationally, will be felt for generations to come.

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