Review article

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GRANVILLE SHARP PATTISON (1791-1851): SCOTTISH ANATOMIST AND SURGEON WITH A PROPENSITY FOR CONFLICT

GRANVILLE SHARP PATTISON (1791.–1851.): ŠKOTSKI ANATOM I KIRURG SKLON SUKOBIMA

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SUMMARY

Granville Sharp Pattison was a Scottish anatomist and surgeon who also taught in the United States. This character from the history of anatomy lived a very colourful life. As many are unaware of Pattison, the present review of his life, contributions, and controversies seemed appropriate. Although Pattison was known to be a good anatomist, he will be remembered for his association with a propensity for conflict both in Europe and the United States.

Key words: anatomy; history; Scotland, surgery; Britain.

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Introduction

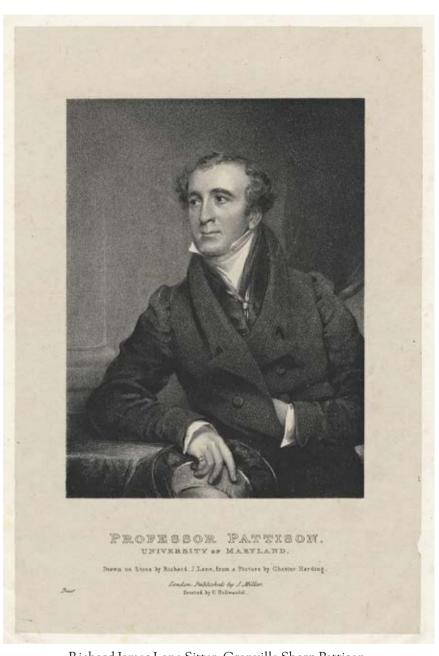
Granville Sharp Pattison (1791-1851) was a Scottish anatomist and surgeon who taught medical practitioners in both Europe and the United States. Named after a British abolitionist, Pattison would become a controversial figure in both his personal and professional life. His reputation was so infamous that Sir William Osler referred to Pattison as "that vivacious and pugnacious Scot." Support of this description is found in the fact that Pattison kept a pair of pistols on his desk at all times (Desmond, 1988). Born in 1791, Pattison entered the era of Edward Jenner's smallpox vaccination discovery and Renee Laennec's invention of the stethoscope. Although from a privileged family in Glasgow, his father was originally from the merchant class of Scottish society. At the Glasgow Grammar School, early records indicate Pattison did not excel in academia, as he refused to study what did not interest him. Without any distinction in school, Pattison was given private tutoring and later enrolled in the University of Glasgow (Pattison, 1987; Duffin, 1998; Zegers et al., 2009; Bazin, 2000).

EDUCATION AND EARLY CAREER

During this time, schools of medicine required few prerequisites for enrollment and thus the discipline was accessible to those of varied academic standing. True to every medical school of the day, the first course was in anatomy, and it was at the University of Glasgow that Pattison developed a strong passion for anatomy under the instruction of Dr. James Jeffray. At the time, Jeffray was experimenting with nerve stimulation in collaboration with Dr. Andrew Ure and later in his career, Pattison would earn Ure's ire. After graduation, Pattison took employment at College Street Medical School, and got on well with the founder and surgery professor, Dr. John Burns. His brother, Allan Burns, hired Pattison as a teaching assistant when only 18 years of age. The exposure proved advantageous to Pattison as Burns' reputation was high particularly in relation to the ligament and space of Burns. Pattison benefited from this relationship and become Burns' partner in the museum of anatomy (Pattison, 1987; Wade, 2001).

Corpse Issues

Prior to 1832, many surgeons in Great Britain illegally exhumed bodies for academic studies. Because medical science could only legitimately use



Richard James Lane Sitter: Granville Sharp Pattison. (© National Portrait Gallery, London)

the corpses of hanged criminals, a shortage slowly occurred as cadaveric demand outstripped availability. Pattison was not exempt from this behavior and he became the head of the exhumation group led by Burns. Medical students illegally exhumed the mortal remains of Mrs. Janet McAllaster, a 40-year-old victim of tuberculosis and wife of a rich Glasgow wool merchant and so began Pattison's journey into open confrontation and conflict with society. To disguise Mrs. McAllaster's identity, her facial features were allegedly mutilated. Pattison survived being pelted with stones and near lynching and later pleaded 'not guilty' to this crime in an Edinburgh courtroom (Crawford, 2013).

Forensic medicine played a key role in the conviction of the grave robbers: artificially constructed dentures created for Mrs. McAllaster fitted the corpse's mouth. However, a disagreement persisted in court between opposing plaintiff and defense dentists. The defense argued that the dentures did not fit the corpse's mouth and the corpse in question had never been pregnant based on the absence of corpora lutea scar tissue. Pattison's verdict was to be found 'not proven' and the judge issued a warning that Pattison should monitor carefully his professional conduct. Despite strong evidence of guilt and the presence of Mrs. McAllaster's body parts in the medical school laboratory, Pattison later complained publically and dramatically of maltreatment, stating "I was indicted, and tried like a common criminal." Pattison later submitted many papers to the Glasgow Medical Society. These topics ranged from epilepsy to abdominal surgery (Pattison, 1987).

Competency Questioned

A surgeon at the age of 25, Pattison soon faced another challenge in his professional career. In one day, he committed two actions earning the enmitty of his senior colleague Dr. Hugh Miller at the Glasgow Royal Infirmary. Although the specific details of their initial acquaintance is not known, Miller was forthright in his opinion of Pattison as an "incompetent" individual, notably after a lower limb amputation performed by Pattison. The charges of 'patient endangerment' stemmed from clinician disagreement over the location of the femoral amputation. Pattison would ligate the femoral artery at the groin, then perform the procedure in such a way as to necessitate incision at the femoral neck, despite a consensus that such an event should be a last resort only. The same day, Pattison was accused of a second episode of medical malpractice. A severely injured patient was consulted by

Miller and he decided that no further medical intervention was required because the patient was near death. Pattison performed his own evaluation and surgery, unbeknownst to Miller, and the eventual death of the patient resulted in accusations of improper procedure. The situation deteriorated to such an extent that Pattison challenged Miller to a duel, although no such event transpired as Miller, sensibly, refused to participate. An investigation into these incidents found fault in Pattison's actions. He eventually departed the Glasgow Royal Infirmary and took a position at Anderson's Institute in Glasgow, but prior to the appointment he spent six months training in Paris (Pattison, 1987; Pattison, 1980).

CONFLICT WITH THE URES

With new colleagues and a solid academic position, it appeared Pattison was about to enter a time of tranquility in his life, however, another quarrel soon ensued. The stench from his cadavers in the anatomy lecture hall disgusted a fellow colleague, Ure. This was just the beginning of conflict, as Ure's wife eventually claimed that Pattison was the father of her soon to be born daughter. The promiscuous behavior was in fact well known to the servants of the Ure household because Mrs. Ure and Pattison had frequent encounters of a questionable nature. To defend his innocence, Pattison defamed the character of the Ure family and accused Mrs. Ure of deceit. She later admitted that she accepted bribes from Ure during the trial but paternity was never proven, and newly-divorced Ure would eventually move to London to begin a new career. The trauma to Pattison's career did not go unscathed by these events, as he resigned from the faculty of Anderson College (Pattison, 1987).

Moving to the United States

His reputation was so tarnished, in fact, that he was described as "your private character at present lies under a stigma and employing you, our own good name would be abused." To survive, Pattison emigrated to the United States to begin a new life in medicine. After a brief stop in London, in 1818, he traveled to Philadelphia to interview for a teaching position at the University of Pennsylvania, a position made known to him by his brother, John Pattison (Anonymous, 1830). Despite his new geographic location, his troubles continued to follow him. He was not offered the position at the University and

soon met with Dr. Nathanial Chapman and this unfortunately led to another era of conflict (Anonymous, 1830; Wainwright, 1940).

Chapman, who had previously studied under Dr. Benjamin Rush, a signatory of the Declaration of Independence, had risen as a powerful figure in the medical community. In regards to obtaining a faculty position, Chapman befriended Pattison, yet also supported Pattison's rivals for the same teaching position. Pattison taught his anatomy course with the specimens from his Glasgow museum but to avoid conflict with other lecturers, he scheduled his sessions outside of the regular class time. However, Chapman constantly changed his lecture hours to coincide with Pattison's, which precluded students from attending both. Chapman's hostile behavior led Pattison to challenge him to a duel which Chapman declined and the battle was instead fought via the pen. In a series of pamphlets, Chapman attacked the professional and personal life of Pattison, with strong references to his affair with Mrs. Ure and this culminated into an unexpected physical brawl on the streets of Philadelphia. Pattison eventually had a pistol duel with the brother-in-law of Chapman, the American general Thomas Cadwalader. Cadwalader suffered permanent right upper limb damage after a bullet was lodged in his elbow from the duel (Wainwright, 1940).

Until this point, the only illegal maleficence Pattison had engaged in was grave robbing, but he would soon be accused of academic plagiarism, as he mistakenly believed he had discovered Colles' fascia. Although not the original discoverer, his clinical application of this and other anatomy would initiate a prolific career in American academia (Pattison, 1987).

CHAIR AT THE UNIVERSITY OF MARYLAND

Once again Pattison tried to avoid controversy, this time with a position as chair of anatomy, physiology and surgery at the University of Maryland in Baltimore. At the time of Pattison's arrival in Maryland and subsequent promotion to dean, his popularity in academia surged. His impact was so great, that he earned the respect of not only his students but also of faculty from different schools of medicine. In terms of medical student training, his belief was that a medical student should work on six cadavers per year. Medical practice lacked many necessities of the modern discipline as, with clinical education in its infancy, more than half of American medical students did not attend clinical rotations. Using his influence, Pattison successfully pushed for the creation of a teaching hospital with student housing.

Medical students were required to document the admission of patients and attend rounds with the physician in charge. Unfortunately, as the number of medical schools increased, standards decreased to allow for a higher graduation rate, and thus become more attractive to future applicants. In response, the government of Maryland took control of the University of Maryland, so Pattison took leave for London.

RETURN TO GREAT BRITAIN

His return to Great Britain prompted him to take action on "The Anatomy Act." Until that time, only the dead bodies of hanged murderers were permitted to be used for academia, and with the passage of the Anatomy Act, cadavers could be sourced from other areas of British society. This alteration provided legal protection to the anatomists who were open to prosecution for the acceptance of illegally acquired human remains.

His moving back to Great Britain began another scandalous era in academia, this time at the newly opened University of London. This new university was more diverse in enrollment than its counterpart in Cambridge, with students consisting of different religious denominations and social standing, representing the new British middle class. Pattison pushed for a change in educational practices at the University of London, with the requirement that faculty be given the title "clinical professors" (Wainwright, 1940).

Pattison's trouble continued at the University of London with a disagreement over compensation for an academic visit to Germany. Once he began teaching, he found himself locked in rivalry with James Richard Bennet, the newly appointed anatomy assistant. The two would enter into direct competition with Bennet holding his anatomy lectures at the same time as Pattison's. Pattison also clashed with Charles Bell in regards to sharing the word "surgery" in their titles. Bell would eventually withdraw from his faculty position and Bennet would die from tuberculosis. On the very day of his funeral, Pattison held an anatomy lecture much to the disdain of the students (Pattison, 1987).

Pattison survived both Bennet and Bell but his most prolonged disagreement was with his students. The students at the University of London, whether by prodding from Bennet or a sincere dissatisfaction with Pattison, began a smear campaign on his academic standing. Accusations were broad and included a lack of professionalism, wearing his uniform over hunting cloths and poorly delivered lectures. They published scathing comments on

Pattison in the *Lancet* and Pattison responded with the use of mandatory class attendance and weekly examinations. The University of London later dismissed Pattison in 1831, even after his staunchest pleas that such an action would reduce him to "beggary" (Wainwright, 1940).

RETURN TO THE UNITED STATES

His next move brought him back to the United States as a professor at Jefferson Medical College in Philadelphia and his new faculty position gave birth to a new era at the college. His passion for anatomy led him to create an anatomical museum with the help of the students. Contrary to the University of London, Pattison was well respected at Jefferson Medical College, in a stable academic position, and now in his forties, the man known for his lack of moral standards, married Mary Sharpe (Pattison, 1987).

In the business world, Pattison also struggled having unwisely invested money into a potential copper mine in Wisconsin. Also serving as a representative for the company, he traveled back to London to solicit business partners. Eventually, the mining company became bankruptcy and consumed Pattison's investments. The property Pattison and his business partners purchased was also apparently mortgaged to another owner. Pattison was the target of numerous lawsuits in regards to payment and his assets were eventually confiscated. His faculty position at Jefferson Medical College also evaporated. Pattison ultimately traveled to his final destination, New York City, to chair the anatomy department at New York University. Pattison befriended Valentine Mott, a well-respected American surgeon known for vascular surgery involving the carotid and iliac arteries. The editor of the New York Lancet, reported a rivalry between Pattison and Mott and the two fell out such that Mott resigned from his position at the University. The process of the disagreement shut down the university's surgical clinic, and this was such an important event that it was even reported in European newspapers (Pattison, 1987).

Pattison was not without his achievements and was author of Experimental Observations on the Operation of Lithotomy, Philadelphia, 1820. In Baltimore he edited the second edition of Allan Burns' Observations on the Surgical Anatomy of the Head and Neck, which was published in 1823. In 1820 he edited the American Recorder, and the Register and Library of Medical and Chirurgical Science, Washington, 1833–6; and was co-editor of the American Medical Library and Intelligencer, Philadelphia, 1836. He translated Joseph Nicolas

Masse's Anatomical Atlas, and also Jean Cruveilhier's Anatomy of the Human Body (Power, 2013).

The final years of Pattison's life were uneventful. The earlier controversies that plagued his professional and personal life were absent and in the end, he died from complications of cholecystitis. To commemorate Pattison's death, his colleagues were black armbands for thirty days. His body was transported back to Scotland where he was buried in the Glasgow Necropolis (Pattison, 1987).

Conclusion

Granville Sharp Pattison's life was one of troubled relationships, personal and professional; however his passion for anatomy never wavered. Although Pattison's life was at a time where medical diagnostics and basic understanding of disease were rudimentary, his endeavors in surgery were pioneering given the conditions under which he practiced. As a leader in science and education, Pattison helped create the foundation for a modern medical curriculum, decriminalize the use of cadavers, and despite his controversial life, would maintain the endearment of many colleagues and students.

REFERENCES

- Anonymous. 1830. Correspondence between Mr. Granville Sharp Pattison and Dr. N. Chapman. Lancet 14:740-745
- 2. Bazin H. 2000. The Eradication of Smallpox: Edward Jenner and the first and only eradication of a human infectious disease. San Diego: Academic Press.
- 3. Crawford B. 2013. Granville Sharp Pattison. The Friends of Glasgow Necropolis http://www.glasgownecropolis.org/profiles/granville-sharp-pattison/
- Desmond A. 1988. Granville Sharpe Pattison: anatomist and antagonist 1791-1851. Med Hist 32:344.
- 5. Duffin, J. 1998. To see with a better eye: A life of RTH Laennec. Princeton: Princeton University Press.
- Pattison FLM. 1987. Granville Sharp Pattison: Anatomist and Antagonist, 1791-1851. Tuscaloosa: The University of Alabama Press.
- 7. Pattison FL. 1980. The Pattison-Miller quarrel. Scot Med J 25: 234-240.
- 8. Power D. 2004. Granville Sharp Pattison. Dictionary of National Biography, 1885-1900, Vol. 44http://en.wikisource.org/wiki/Pattison, Granville Sharp (DNB00)
- 9. Wade RS. 2001. Medical Mummies: The history of the Burns collection. Chungara: Revista de Antroplogia Chilena. 33: 99-101
- Wainwright NB. 1940. Affair with Professor Pattison. Penn Mag Hist Bio 64:331-344.
- 11. Zegers R, Weigl A, Steptoe A. 2009 The death of Wolfgang Amadeus Mozart: An Epidemiologic Perspective. Ann Int Med 151: 274-297.

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Sažetak

Granville Sharp Pattison je škotski anatom i kirurg koji je također podučavao u Sjedinjenim Američkim Državama. Ovaj lik iz povijesti anatomije živio je vrlo šaroliki život. Budući da mnogi nisu upoznati s Pattisonom, ovaj pregled njegova života, doprinosa i kontroverzi čini se prikladnim. Iako je Pattison bio poznat kao dobar anatom, on će biti zapamćen po svojoj povezanosti sa sklonošću sukobima i u Europi i u SAD-u.

Ključne riječi: anatomija; povijest; Škotska, kirurgija; Britanija.