REFLECTIONS

## Eponyms in anesthesiology

Bridgette Chan, BS 💿



Received: 29 April 2022/Revised: 30 June 2022/Accepted: 7 July 2022/Published online: 19 August 2022 © Canadian Anesthesiologists' Society 2022

**Keywords** eponym(s) · nomenclature · medical terminology

"Can I get the patient in Trendelenburg?" It is my first time in the operating room (OR). I wonder—thankfully in my head—where is Trendelenburg? Bzzzz! The head of the bed goes down and the foot of the bed goes up. I am only left with more questions. Now I wonder *who* or *what* is Trendelenburg? Unaware of my inner dialogue, my colleagues in the OR continue with their work. They understood what was meant by "Trendelenburg" because his name has come to represent things beyond himself, including the position, sign, test, and gait.

This is because Trendelenburg is an eponym. An eponym is an object, disease, or activity named after someone. Eponyms are common in everyday language: Boycott, Cardigan, and Sandwich. They are also pervasive in medicine, despite many scholarly and professional organizations moving away from them.<sup>1-3</sup> The most recent Terminologia Anatomica, published in 2019, only lists eponyms as related terms and favours the English and Latin terms.<sup>4</sup> Common, shared languages are an important part of communication between professionals. In anesthesiology, eponyms are part of a shared jargon learned through years of training. Apgar, Bier, MacIntosh, Mallampati, Quinke, Seldinger, Tuohy, and Yankauer are just a few examples. Nevertheless, this jargon can also disconnect us from others who do not understand it; for example, if we use it when speaking with patients. In this way, language can also be divisive. Reflecting on our lexicon is an important part of establishing patient and culturally safe environments and ensuring the words used reflect the progression of the profession. To evaluate our use of eponyms, we must

B. Chan, BS (🖂)

consider their merits in current practice, their risks, and what they tell us about our past values.

First, we should establish that eponyms serve two important functions. Firstly, they can be helpful short forms of longer, more complicated words. This can make eponyms more accessible terms to remember and say for patients and clinicians. For example, Ringer's lactate is an easy way to refer to a specific crystalloid solution and can be a faster and more efficient way to refer to it in emergency situations. Secondly, eponyms infuse our practice with history. Eponyms are a well-established tradition that allow credit to be given for great innovations. After a difficult intubation for a Cesarean delivery, Dr. Mallampati developed a scoring system to help anesthesiologists better anticipate difficult intubations.<sup>5</sup> When we say "Mallampati," we reference a physician who, like all anesthesiologists, wanted to improve patient safety. Intentionally or not, we recognize and strengthen his contribution to the specialty and the cause each time we utter his name.

There are also drawbacks to using eponyms. In 1849, Darwin wrote that eponyms were a lazy and conceited practice.<sup>6</sup> His reasoning was that eponyms overvalue the act of discovering instead of thorough scientific study, which leads to a lot of discovery and minimal understanding. In the present day, the risks of eponyms include not only those cited by Darwin, but also modern safety and cultural considerations that come along with colonized language.

Eponyms can be dangerous. Medicine has many lookalike and soundalike terms, and referring to something by multiple names makes communication even more confusing. There are many cases of physicians who made multiple discoveries, for example the neurosurgeon Dr. Harvey Cushing, for whom there are at least eight eponymous terms, including Cushing's syndrome, Cushing's disease, Cushing's symphalangism, Cushing's triad, and Cushing's clip.<sup>7</sup> One study of eponyms in electronic health records found that six out of 57 patients over a two-year period had the wrong diagnosis in their

Faculty of Medicine, Dalhousie Medical School, Dalhousie University, Halifax, NS, Canada e-mail: bridgette.chan@dal.ca

record because of two soundalike names.<sup>8</sup> Multiple, difficult-to-pronounce terms for conditions can also be frustrating and potentially harmful. The Maladie de Denborough or King Denborough syndrome can be difficult for patients to remember and pronounce, but it is critical that they are able to relay this information to anesthesiologists. Noneponymous naming is often more descriptive and can be a simple remedy for soundalike, lookalike terms. Consider the difference in information and clarity between Venturi mask and air-entrainment mask. Not only is air-entrainment mask a specific, accurate name, but it is also more helpful for determining its function. Similarly, we are more precise when we say nonrebreather mask instead of Hudson mask. Eponyms can introduce unnecessary ambiguity into patient–clinician interactions.

Eponyms can mislead when it comes to credit and fail to recognize the broader contexts of medical discoveries. For example, the Tuohy needle was first described by Ralph Lee Huber, not Edward Tuohy. Historical texts have been unable to fully explain this mishap, but in saying Tuohy needle, we incorrectly dismiss Huber's contribution.<sup>9</sup> many Anesthesia is highly collaborative, and anesthesiologists build on each other's work. Eponymous naming focuses on the contributions of one person. For example, when performing a Bier block, one also uses an Esmarch bandage, but Esmarch's name is not recognized equally in the procedure. Similarly, Chevalier Jackson revolutionized anesthesiology when he developed the first laryngoscope with a distal light source.<sup>10</sup> In the OR now, Jackson direct laryngoscopes are nowhere to be found; the newer laryngoscopes with lights, Miller and MacIntosh are the names you hear. Advancements in technology have led us to forget Jackson. Sometimes eponyms are consciously replaced and other times they fade away without anyone noticing.

Can eponymous figures be separate from their deeds? It can be challenging to decide the eponymous threshold and how to interpret historical actions and values through today's lens. One example of this is Dr. Whipple-of the procedure, who discouraged Dr. Apgar from becoming a surgeon citing various other women who had tried and failed to do so.<sup>11</sup> By today's standards, this is indefensible but from historical records, it is difficult to ascertain Dr. Whipple's attitudes towards women in medicine. Maybe he was just realistic about the climate of medicine towards women in the 1930s and felt she would have a more fulfilling and prosperous career in anesthesiology. Knowing this information, to say Whipple or not is a value judgement. We must weigh the ease and familiarity of Whipple against the precision and moral safety of pancreaticoduodenectomy.

Removing eponyms from medicine completely would be a massive undertaking, requiring renaming and

relearning many terms.<sup>12</sup> Yet, some eponyms must be retired because of cultural and colonial implications. In 2011, Wegener's disease was renamed granulomatosis with polyangiitis after Wegener's involvement with the Nazi party was addressed.<sup>13</sup> It is one thing to honour lazy scientists with eponyms, as Darwin would claim, and another to honour members of the Nazi party. Medical history is uncomfortable and riddled with unforgivable events, which we can be reminded of through eponyms. It is possible that, by using some eponyms, we are remembering the names of people who are not deserving and perpetuating a culture of intolerance not reflective of today.

Many of the "fathers" of medicine were white and male and this has led to the over representation of privilege and colonization of medical jargon. If we keep existing eponyms but stop making new ones, the diversity in anesthesia will never be fully represented in the language. One example of this is the dearth of female eponyms. Female eponyms lack the significance and memory of the past that many male eponyms do. One article found that only 4% of medical eponyms were female.<sup>14</sup> The same article found a significant difference in the amount of historical data associated with eponymous men and women. Only 22% of eponymous women had an associated journal article or obituary compared with 59% of eponymous men.<sup>14</sup> Without the correlating historical and biographical records, eponyms lose their power to connect us with the history of anesthesia and its increasing diversity.

Much like Trendelenburg position, which is not nearly as widely used today as it was in the past, many eponyms are slowly fading away.<sup>15</sup> There are few new eponyms entering the anesthesiologist's lexicon and this has good and bad consequences. Eponyms can be a way to recognize the achievements of deserving scientists and unite anesthesiologists to their shared goals, but they can be dangerous, imprecise, and morally problematic. Steps to analyse our use of eponyms can include asking ourselves a few simple questions. Who is our target audience? What purposes are they serving? What values do they carry? Language, including eponyms, is fluid-eponyms will come and go as practices change and new inventions replace old, like the evolution of laryngoscopes. Whether we are passive or deliberate in our use of eponyms, it is a personal choice and it is worthwhile to consider if they are serving us well.

## Disclosures None.

**Funding statement** The author declares that she did not receive any funding for this paper nor received other sources of funding.

Editorial responsibility This submission was handled by Dr. Stephan K. W. Schwarz, Editor-in-Chief, *Canadian Journal of Anesthesia/Journal canadien d'anesthésie.* 

## References

- 1. *The Jama Network Editors*. AMA Manual of Style: A Guide for Authors and Editors, 11th edn. New York: Oxford University Press; 2020.
- World Health Organization. World Health Organization best practices for the naming of new human infectious diseases, 2015. Available from URL: https://apps.who.int/iris/bitstream/handle/ 10665/163636/WHO\_HSE\_FOS\_15.1\_eng.pdf (accessed July 2022).
- 3. *Tubbs RS*. The relevance of terminologia anatomica and the federative international programme of anatomical terminology (FIPAT). Retrieved from URL: https://eurjanat.com/articles/the-relevance-of-terminologia-anatomica-and-the-federative-international-programme-of-anatomical-terminology-fipat/ (accessed July 2022).
- 4. *Buttner R, Lee J, Cadogan, M.* De-eponymizing anatomical terminology, 2021. Available from URL: https://litfl.com/de-eponymising-anatomical-terminology/ (accessed July 2022).
- O'Leary AM, Sandison MR, Roberts KW. History of anesthesia; Mallampati revisited: 20 years on. Can J Anesth 2008; 55: 250–1. https://doi.org/10.1007/bf03021512
- Darwin, C. Darwin Correspondence Project: To H. E. Strickland 2020. Available from URL: https://www.darwinproject.ac.uk/ letter/?docId=letters/DCP-LETT-1221.xml (accessed July 2020).
- Kleinert R. Harvey Williams Cushing. Available from URL: https://www.whonamedit.com/doctor.cfm/980.html (accessed July 2022).

- Munugoor Baskaran LN, Greco PJ, Kaelber DC. Case report medical eponyms: an applied clinical informatics opportunity. Appl Clin Inform 2012; 3: 349–55. https://doi.org/10.4338/aci-2012-05-cr-0019
- 9. Lubisich JW. Ralph L. Huber, DMD: forgotten inventor of the "Tuohy" needle. J Hist Dent 2004; 52: 75–9.
- Zeitels SM. Chevalier Jackson's contributions to direct laryngoscopy. J Voice 1998; 12: 1–6. https://doi.org/10.1016/ s0892-1997(98)80069-6
- National Library of Medicine. From surgery to anesthesiology, 1933–1937. Available from URL: https://profiles.nlm.nih.gov/ spotlight/cp/feature/surgery (accessed July 2022).
- Ferguson RP, Thomas D. Medical eponyms. J Community Hosp Intern Med Perspect 2014; 4: 25046. https://doi.org/10.3402/ jchimp.v4.25046
- Woywodt A, Haubitz M, Haller H, Matteson EL. Wegener's granulomatosis. Lancet 2006; 367: 1362–6. https://doi.org/10. 1016/s0140-6736(06)68583-8
- Stuart-Smith J, Scott K, Johnston M. Where are all the women? 2022. Available from URL: https://litfl.com/where-are-all-thewomen/ (accessed July 2022).
- Thomas PB. Are medical eponyms really dying out? A study of their usage in the historical biomedical literature. Available from URL: https://www.rcpe.ac.uk/sites/default/files/jrcpe\_46\_4\_ thomas.pdf (accessed July 2022).

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations. Springer Nature or its licensor holds exclusive rights to this article under a publishing agreement with the author(s) or other

under a publishing agreement with the author(s) or other rightsholder(s); author self-archiving of the accepted manuscript version of this article is solely governed by the terms of such publishing agreement and applicable law.