



Guest Editorial

Eponyms in Medicine: A Socratic Dialogue

Rimli Barthakur¹, MS, Sushil Dawka², MS

Departments of ¹Ophthalmology and ²Surgery, SSR Medical College, Belle Rive, Mauritius.

***Corresponding author:**

Sushil Dawka,
Department of Surgery, SSR
Medical College, Belle Rive,
Mauritius.

sushil.dawka@gmail.com

Received : 12 September 2022

Accepted : 18 September 2022

Published : 10 October 2022

DOI

10.25259/GJMPBU_72_2022

Quick Response Code:



Most readers of this journal are familiar with, and no doubt use, a selection of medical and biomedical eponyms. We either love them or hate them, and we each have our favorites and our *bête noires*. We use them often unknowingly, frequently inappropriately, sometimes unwillingly and even incorrectly.

The jury on eponymous terms is hung. Scientific nomenclature is at best an art, often an unscientific free-for-all, both in the appellation and the usage of technical terms. Some feel that eponymous terminology is old-fashioned and that non-descriptive terms that obfuscate and confuse only serve to hinder and complicate medical education and discussions. After all, eponyms can be, and often are, misremembered, misquoted, or misunderstood.

Proponents, on the other hand, aver that eponyms encapsulate complex terms and multifaceted syndromes neatly. Indisputably, they do provide a convenient linguistic shortcut, and possibly honor or commemorate the makers of medical history. Some authors recommend the use of acronyms instead, such as POEMS which elegantly and usefully stands for polyneuropathy, organomegaly, endocrinopathy, monoclonal gammopathy, and skin abnormalities. However, not all acronyms are usefully memorable as mnemonic devices: an example is H syndrome (for hyperpigmentation, hypertrichosis, hepatosplenomegaly, heart anomalies, hearing loss, hypogonadism, low height, and hyperglycemia).

Our intention in this treatise is neither to speak for nor against the use of eponymous terms but to give you, the reader, a sense of their imprecision and the reasons why people support or denigrate them so that you can make an informed decision on where you stand *vis-à-vis* the use of eponyms. Nothing we do individually will change their usage patterns but, hopefully, collective judicious and merited usage will help remove the woolliness and ambiguity that clouds their utility. We, therefore, raise a few questions regarding their use and invite you to ponder the answers.

But first, a nod to the pedants: most authors use the term *eponym* in reverse. To illustrate, ‘Down syndrome’ is strictly not the eponym for Trisomy 21; it is the eponymous term derived from the name of John Langdon Down who, in the strict grammatical sense, is the eponym. The word is derived from the Greek (*epi* “upon” and *onoma* “name”) and is defined in language dictionaries as one (a person or place) for whom something is named. However, medical professionals have a long tradition of murdering grammar while we go about healing the sick, and to this among our less gory sins, we plead both ignorance and tradition. Given that language evolves even as it outlives all speakers, this essay too will use the term “eponym” to refer to the condition rather than the person.

This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-Share Alike 4.0 License, which allows others to remix, transform, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

©2022 Published by Scientific Scholar on behalf of Global Journal of Medical, Pharmaceutical, and Biomedical Update

We shall not be listing eponyms here; there are numerous textbooks and web pages that compile the thousands in use. We shall be raising questions and highlighting some common inconsistencies and aberrations in the use of eponyms to rationalize their use.

First: Are eponyms going extinct?

This is at best wishful thinking for haters, to whom we whisper, “Look around you.” Not only in medicine, eponyms are everywhere, sometimes incognito. Most other branches of science are in peaceful coexistence with their eponyms. No one militates against the use of terms like Avogadro’s number, Boolean logic, Chandrashekar limit, Raman scattering, Darwin’s theory, Zeno’s paradox, or, yes, Socratic dialogue. Eponyms are universal, often segueing neatly in place where a clumsy multisyllabic description would not fit, including in the title of this piece. Often, we do not remember or recognize their derivation: even ordinary words like gigantic or volcanic are etymologically eponymous (from the belligerent Greek Gigantes who fought the Olympian Gods, and the Roman god of fire, Vulcan). The realization that eponyms are everywhere and will likely outlive the memory of their derivation provides the *raison d’être* for this essay.

Why are medical eponyms so contentious?

Eponyms abound in all the sciences and indeed the arts: Newton’s Laws, Mendelian inheritance, Haber process, Corinthian columns, Shakespearean drama, and Freudian slips. There does not seem to be a move against these in other disciplines, so why in medicine? Perhaps, it is because our use of these terms is characteristically and rather egregiously disorganized.

An eponym is a convenient soundbite alternative to a mouthful of syllables or a string of phrases. Undeniably, it is much easier to say “Fallot tetralogy” than “congenital cyanotic heart disease due to ventricular septal defect, pulmonary stenosis, right ventricular hypertrophy, and aortic dextroposition.” But is the eponym even fractionally as meaningful as the string of descriptive phrases it conceals? To the learned cardiologist, yes; to the overburdened medical student, no. The point here is that the expert already knows what is unsaid, but the average learner may not. The eponym calls on pre-existent knowledge, it does not tell us anything we did not know. It is at best a handle to conveniently grasp at something familiar and pre-conceived, not a label for something new.

Students love or hate eponyms, there is no middle way. The pedantic ones love eponyms as indices of recondite knowledge; less bookish students hate them as “one more meaningless thing to remember” (an actual student quote). For busy practitioners, they are an expedient shorthand, though many

eponyms may be merely an unquestioned habit: why else would a neurologist prefer “Steele-Richardson-Olzewski syndrome” to “progressive supranuclear palsy?” For teachers, eponyms make neatly condensed queries to cast at students like shurikens: compare asking a student where tenderness of acute appendicitis is maximal (intelligently guessable) with the opaque question “What is MacBurney’s point?”

Do eponyms commemorate the person who first discovered the condition?

A study of the chronology of medical discovery often reveals that someone had described the condition even earlier than the one whose name it bears, perhaps in another country or in the literature of another language. This has been half-jokingly enshrined in Stigler’s Law of Eponymy which states, “No scientific discovery is named for the original discoverer.” As proof, the economist Stephen M Stigler himself attributes the discovery of his law to sociologist Robert K Merton. Malcolm Gladwell added an incisive corollary, “We think that we are pinning medals on heroes. In fact, we are pinning tails on donkeys.”

Again, some diseases are named after patients who actually suffered from the disorder. Naming amyotrophic lateral sclerosis after the popular baseball player Lou Gehrig brought it to public attention and helped fuel research funding. Tommy John Surgery (ulnar collateral ligament reconstruction) is named after the first baseball player to undergo the eponymous surgical procedure. Bacitracin commemorates Tracy, a 7-year-old girl with a compound tibial fracture from whose wound discharge the source organism was isolated. Sometimes, the eponymous person is both physician and patient: the French physician Armand Trousseau considered migrating thrombophlebitis pathognomonic of visceral malignancy, diagnosed it in himself and eventually died from gastric cancer. Carrion’s disease (Bartonellosis) is named for Daniel Alcides Carrión García who injected himself with blood from a patient and died forty days later. Incidentally, it has nothing to do with carrion (decaying animal flesh).

Do eponyms truly honor the person they commemorate?

Not always. Robert Graves is nominally commemorated by primary thyrotoxicosis; unfortunately, Graves’ disease or toxic diffuse goiter is often misspelled Grave’s disease or, worse, grave’s disease. Students may think that it is a gravely serious condition, which it often is, that leads to the grave, which it rarely does.

Sometimes, it is uncertain who is being commemorated. Whipple’s disease commemorates George Hoyt Whipple, an American pathologist, while pancreatoduodenectomy is named for the American surgeon, Allen Oldfather Whipple. Does the distinction matter, given that the two were lifelong friends?

A corollary to the above is the question of whether the people that they commemorate are worth remembering. Physicians with Nazi backgrounds are being retrospectively blacklisted. Hans Reiter of Reiter's syndrome fame is the prototype. He is believed to have conducted experiments on prisoners in the concentration camps and is, therefore, believed unworthy of honorable commemoration. Hans Asperger and Friedrich Wegener have also been linked to Nazi racism and genocide; activists believe that they are best forgotten by discontinuing the usage of their eponyms. Unfortunately, Autism spectrum disorder (for Asperger syndrome) and Granulomatosis with polyangiitis (for Wegener's granulomatosis) are unwieldy terms and the acronyms are not memorable though their usage is gaining ground as politically correct alternatives. To add to the confusion, Wegener's disease (one "e" less) is congenital syphilitic osteochondritis, also known as Parrot's pseudoparalysis (named after Jules Marie Parrot, not the bird).

It is one thing to be remembered by something pleasant or useful; having a disease named after you may not be so gratifying. Wegener himself disliked being an eponym. Crohn too was uncomfortable with regional enteritis bearing his name. For thousands of other posthumous eponyms, one can only wonder. It is unlikely that, had he known, the French dermatologist Jean Alfred Fournier would appreciate having his name bequeathed to a particularly nasty form of scrotal and perineal synergistic gangrene, especially when it was first described by H Baurienne, 120 years earlier.

Is the commemoration deserved, accurately presented or even relevant?

Some eponyms are accidental and commemorate the person who publicized a condition rather than discovered it. Burrill Bernard Crohn, Leon Ginzburg, and Gordon Oppenheimer coauthored "Regional Ileitis: A Pathological and Clinical Entity." The disease became eponymized as Crohn's disease simply because his name came first in alphabetical order. Similarly, the Watson-Crick model is so called because Watson won a coin toss to be named first; one wonders why they forgot Rosalind Franklin and Maurice Wilkins. This, we feel, is a glaring example of how eponyms, for reasons of brevity and memorability, disregard or belittle the teamwork and collaboration that modern scientific discovery entails.

Behçet's disease also illustrates the uncertainty of deservedness: In 1937, the Turkish dermatologist Hulusi Behçet described the disease, but Benedictos Adamantiades described a case seven years earlier. Several others have contributed to its elucidation and to be scrupulously fair, according to Cem Evreklioglu, Turkish ophthalmologist and *soi-disant* "Behçetologist," we should call the disorder: Hippocrates-Janin-Neumann-Reis-Bluthe-Gilbert-Planner-Remenovskiy-Weve-Shigeta-Pils-Grütz-Carol-Ruys-Samek-Fischer-Walter-Roman-Kumer-Adamantiades-

-Dascalopoulos-Matras-Whitwell-Nishimura-Blobner-Weekers-Reginster-Knapp-Behçet's disease.

Another contentious and misrepresented eponym is that for sideropenic dysphagia. The most common term is Plummer-Vinson syndrome, named after Henry Stanley Plummer and Porter Paisley Vinson, both Mayo Clinic physicians in the United States. Simultaneously, two British laryngologists, Donald Ross Paterson and Adam Brown Kelly published their findings independently. Purists hold that the correct term should be Plummer-Vinson-Paterson-Kelly. Some versions include Brown-Kelly, but even that is incorrect, Dr. Kelly is how he was known. To add to the confusion, it is known as Waldenstrom-Kjellberg syndrome in Sweden.

In contrast to a multitude of names heaped onto one condition, we may have one name spread thin across several conditions. Percival Pott and James Paget each have several varied conditions to be remembered by. An extreme example is the Austrian ophthalmologist Ernst Fuchs who has no less than seven conditions bearing his name: Forster-Fuchs spots, Dalen-Fuchs nodules, Fuchs heterochromic iridocyclitis, Fuchs endothelial dystrophy, Fuchs phenomenon, Fuchs coloboma, and Fuchs superficial marginal keratitis. The uncertainty is not so much where and whether to apostrophize his name but how to pronounce it correctly and decorously.

Some eponyms are similar enough to cause confusion with undesirable consequences. Fritz de Quervain is commemorated by radial styloid tenosynovitis, testicular feminization, and subacute granulomatous thyroiditis. A common misnomer is Werner's syndrome (premature aging) for Wermer's syndrome (multiple endocrine neoplasia, Type I). Other confusions arise between Frey syndrome and Frei disease, Meigs and Meigs's syndromes, Meniere and Menetrier diseases, and Albright syndrome with Albright anemia.

Some eponyms overlap in a hair-splittingly confusing manner: Morton's metatarsalgia is named for Thomas George Morton while Morton's foot syndrome (metatarsus atavicus) is named for Dudley Joy Morton, both American surgeons. The British surgeon, Thomas Morton, lived earlier and has left us no eponyms, but being better known is often credited for both conditions. So, whom exactly are we memorializing here?

Are eponyms the same worldwide?

Obviously, there are nationalistic preferences and claims for primacy, more so in the field of discovery than invention. Technological innovations are drivers for scientific advance and it is no coincidence that often the same thing is discovered synchronously in different corners of the world. Moreover, in historical times, the dissemination of innovative ideas took years and establishing who exactly was first is contentious.

Virchow's node or supraclavicular lymphadenopathy is named after Rudolph Virchow, a German physician, who described the association with gastric cancer in 1848. However, in France, the phenomenon is named after Charles-Emile Troisier, a French physician, who described the condition in 1886. In a compromise, some authors distinguish between Virchow's node and Troisier's sign. Others combine them into the clumsy "Virchow-Troisier node" commonly mispronounced (correctly, fir-ko and trwa-zee-ay).

Ankylosing spondylitis is known as Bekhterev disease in Teutophone countries (Bechterewsche Krankheit in German). In Francophone countries, the name Marie-Strümpell disease is more common, shared after two neurologists: though Pierre Marie was French, Ernst Adolf Gustav Gottfried von Strümpell was German.

Should we use the possessive case for eponyms?

With regard to the naming of diseases, in 1975, the Canadian National Institutes of Health conference concluded, "The possessive use of an eponym should be discontinued since the author neither had nor owned the disorder." The most-quoted example is that for trisomy 21, the format 'Down syndrome' is preferred over 'Down's syndrome'. Despite being published in the *Lancet*, this popular trend is grammatically incorrect and yet another instance of iatrogenous language mangling. The apostrophe "s" after an eponym does not necessarily signify ownership, it is in the grammatical genitive case that allows one noun to describe another (such as the King's English, the sky's color, or Trendelenburg's position).

When is an eponym not an eponym?

This confusion is often the result of translation mishaps. Consider the Jod-Basedow effect first described by Karl Adolph von Basedow. *Jod* is simply the German word for Iodine (pronounced "yod"), yet unsuspecting students still ascribe the effect to a non-existent Mr. Jod Basedow. To add to the confusion, Graves' disease is sometimes referred to as Basedow's disease.

From the same dictionary, the term sitz bath is derived from the German word Sitzbad, meaning a bath (*bad*) in which one sits (*sitzen*). Students, for want of something to fill a blank examination page with, have attributed its invention to an ingenious but imaginary Mr. Sit.

At times, an eponym and a related acronym get interchanged. The Alvarado score, devised by Dr. Alfredo Alvarado, is often remembered by the acronym MANTRELS as a mnemonic for eight parameters in acute appendicitis. Students sometimes attribute the score to a non-existent Dr. Mantrel and then struggle to decrypt the non-acronym ALVARADO. Conversely, many students think the Apgar score is an acronym for Activity, Pulse, Grimace, Appearance, and

Respiration scoring at birth, not realizing that it was devised by the anesthesiologist Virginia Apgar.

A caisson is a watertight pressurized chamber for underwater bridge and pier construction; the word is derived from Middle French *caissa* for chest (as for storing ammunition). Acute decompression syndrome is called caisson disease. Unfortunately, this is often mistakenly eponymized into "Caisson's disease;" regrettably, Google counts more instances of the incorrect form in the published literature: 570,000 versus 309,000 results. With the understanding that Monsieur Caisson does not exist, it could be called caissonier's disease after the workers who suffer it, though *caisson disease* works.

What other criticisms can we heap on eponyms?

Eponyms make for brief, sharp academic questions, and feature prominently in multiple choice questions and in *viva voce* examinations. This common practice risks attributing too much importance to the eponyms associated with a disease to the detriment of background understanding. After all, splenic trauma is much more than Kehr's sign, Ballance's sign, Saegesser's splenic (or phrenic) point, and the latent period of Baudet. How do you compare a student who correctly names and spells all these signs of splenic rupture with one who can explain why there is left shoulder pain when a patient in shock is positioned head down but cannot recall the names of a German, an English a Swiss, and a French surgeon?

Paradoxically, the rarer a syndrome the more commonly it appears on question papers and tests; students, therefore, get the subliminal false impression that the process of diagnosis is all about finding the foreign name that fits. We have had students who can proudly rattle off over twenty eponymous eye signs in thyroid ophthalmopathy (a truly impressive feat even if supported by mnemonic tricks) but can barely describe a handful and would be hard-pressed to explain the underlying mechanisms.

Students in developing countries for whom the medium of medical instruction is a second language may have difficulty in remembering or even recognizing eponyms for what they are. They may need to be told specifically that the Child-Pugh score is not pediatric, and we have had to explain that the Glasgow coma scale is named for a Scottish city, not a vitrified bovine.

Eponyms have been used as euphemisms: Koch's disease for tuberculosis and Hansen's disease for leprosy. Fortunately, with reducing disease-related social stigma, this duplicitous practice is dying out and should never be revived.

Eponyms are also vilified in more contemporary contexts as being pale, male, and stale, reflecting the overwhelming prevalence of names of long-forgotten white men. That is an accident of history. After all, the millennia-old saga of medical

discovery is itself a history of accidents. Nomenclature is a clash of idiosyncrasy, history, geography, nationalistic pride, personal egoism, linguistic *faux pas*, misplaced reverence, and poor science. Even among eponyms, the fittest survive and, in the rapidly evolving world of medical terminology, it is fitness for purpose that assures longevity. Fortunately, dysfunctional eponyms and those with genetic flaws fall into disuse and conveniently go extinct.

And then there is self-eponymization. Inventions (not discoveries) such as scoring systems, operative procedures, and management protocols may necessarily and reasonably be named after the innovator; how else would we refer to Bassini's herniorrhaphy, the Fasanella-Servat procedure or the Child-Turcotte-Pugh score? However, it is considered poor form to attempt to name a discovery after oneself, that is a task – and a decision – for posterity. A generation ago, the oncologist Charles K Tashima described Tashima's syndrome as a condition in which a physician searches for a new sign, disease, or syndrome to which his name can be attached (and claimed priority for himself in a jocular self-referential note). The pediatric nephrologist Dennis Gill concocted a facetious backronym stating that *eponym* stood for: "Every Pediatrician of Note Yearns Memorability."

Most editorial boards will have encountered submissions that are blatant attempts to manufacture a new eponym by concocting a physical sign or a clinical test. It is amusing to observe how frequent egotistic attempts to fabricate auto-eponyms on Wikipedia are excised by vigilant web editors.

The fact that almost all eponyms in current use are historical should discourage the creation of new eponyms driven not by intrinsic utility but by a craving for a memorial plaque or a tombstone.

Eponyms are like mementos: Some are true reminders of scientific eminence, a few are utilitarian if only as paperweights or wall cladding, and many crumble by the wayside to be trodden on, mossed over, and forgotten. The fate of any eponym is unpredictable. There are no good or bad eponyms, only those that survive and those that do not. Moreover, it is popular usage, driven by usefulness, relevance, and convenience, that will decide that.

Finally, the question we leave you with may be neither what you expected nor what we set out to ask:

Can you avoid eponyms even if you wanted to?

BIBLIOGRAPHY

1. Available from: <https://www.merriam-webster.com/dictionary/eponym>
2. Evereklioglu C. Regarding the naming dilemma of Behcet disease in the 21st century. *Oral Dis* 2007;13:117-22; author reply 122.
3. Gill D. Doctors like eponymity. *Hektoen Int* 2011;3.
4. Tashima CK. Tashima's syndrome. *JAMA* 1964;194:678.

How to cite this article: Barthakur R, Dawka S. Eponyms in medicine: A Socratic dialogue. *Glob J Med Pharm Biomed Update* 2022;17:16.