

# Eponyms in Anatomy: A Historical Tug of War

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## ABSTRACT

**Introduction:** in anatomy, there is an appropriate and specific terminology, used to facilitate communication among professionals, called the Anatomical Terminology. Anatomical Terminology is taught and extensively used by the students who are taking the basic sciences classes (anatomy, histology, embryology, physiology). However, when moving forward to the clinical sciences, the Anatomical Terminology usage regresses so that the use of eponyms and obsolete terms becomes commonplace. Eponyms and their use in the clinical sciences are a reality that we cannot neglect. Thus, the Anatomical Terminology use, associated with eponyms, certainly promotes an essential and primordial dialogue between the basic sciences and clinical practice.

**Keywords:** Anatomy; Eponyms; Anatomical Terminology; Basic sciences; Clinical .

## Dear Editor,

The use of certain words is capable of revealing many characteristics about the interlocutor. In this context, the use of unusual or far-fetched words, some of which are quite immiscible to the general public, can constitute a barrier to understanding a given subject, or even expressing arguments that certainly impede any kind of debate. Interestingly, this should not be the case with Anatomy, once there is an appropriate and specific terminology, used to facilitate communication among professionals.

As much as many do not initially understand, Anatomical Terminology (AT) aims to systematize thousands of structures in the vertebrate body added to various other information that generally indicates their location, position, shape, size, or even function. Thus, Anatomy uses terms preserved in its history that should facilitate the understanding of the terminology even by laypeople. Even so, AT is far from being a consensus among professionals who use it.

Recent studies bring important reflections about AT, its importance, and its use. The truth is that AT learning is a great challenge as requires students to incorporate a large number of terms that, for the most part, do not have an affinity with the native language, particularly for those of languages not derived from Latin.

In this context, it is necessary to create strategies that can facilitate the teaching and learning process, for example, the knowledge of the etymology of words<sup>1</sup>. In addition, another interesting discussion takes place about the incorporation of very low-

frequency anatomical variations, without the inclusion of appropriate or specific anatomical terms that, in some way, should be covered<sup>2</sup>.

It is interesting to experience such discussions. They are needed and welcome. We have institutions that are responsible for monitoring and indicating updates to the AT. However, we know that AT is not the sole and only way of naming anatomical structures. Eponyms and their use in the clinical sciences are a reality that we cannot neglect.

Some authors advocate restricting the use of eponyms (eponym, from the Greek *eponymos*, comes from *epi* "in, above, after" and *anonymous* "name"; meaning "with the name of") in classrooms because the discoveries bear the names of "pale, male, and stale" scientists<sup>3</sup>. Well, it is assumed that scientific advance is not based on phenotypic characteristics like skin color, sex, or the life stage of an individual. In any case, many scientists state that some eponyms are unreliable and do not always pay homage to those responsible for the discovery; even because the signs and patterns of a new disease, for example, are not always adequately described at first, due to the lack of understanding of this disease<sup>4</sup>. Another factor to be taken into account is that the same structure can receive more than one eponym, depending on the nationality of the anatomist. However, it must be stressed that most eponyms can evidence the real scientists responsible for the progress of knowledge in the field<sup>5</sup>.

Generally, the use of eponyms is not recommended during the study of Anatomy, as it could hinder the teaching-learning process of the discipline. In fact, the

widespread use of eponyms can also reveal some errors that interfere with clinical practice, scientific writing, and the search for medical terms in the literature<sup>6</sup>.

So why are eponyms still used, especially in the clinical setting? A common answer lies in the simplicity of terminology. Several authors not only agree but defend the eponym use.

According to Musso (2019)<sup>7</sup>, eponyms bring beauty to medical language; have the ability to gather ideas; they can become anachronistic over time, but they can be replaced by another eponym with a more current appeal. They can mean recognizing scientists or artists whose descriptions have made a significant contribution to medicine and culture.

As Aresti and Ramachandran (2012)<sup>4</sup> noted, it is much more complicated to describe a distal radius fracture with angulation due to a low-speed lesion than simply citing Colles' fracture. But beyond that, eponyms reveal a lot about the history of Anatomy and its many ramifications, something that cannot be overlooked. Over time, several scientists and clinicians contributed to the advance of science and had their names indelibly marked in the history of medicine. With eponyms, it is possible, for instance, to obtain a greater understanding of the history of the heart<sup>8</sup>, about laryngology<sup>9</sup> or even about neuroradiology<sup>10</sup>.

Also, we cannot forget the importance of Greek mythology, such as the story of the Titan Atlas, the legendary warrior Achilles, or the gorgon Medusa. Thus, students would be encouraged to seek the history of the discovery of a given structure, as well as the history of its discoverer. Knowing the "men of anatomy" is knowing how to recognize Anatomy

development as a science<sup>11</sup>.

It is very important to understand that the curriculum of Medical courses has adopted a model that prioritizes the coexistence of basic and clinical sciences throughout training. Anatomy has less time available for being taught, at the expense of expanding radiological and endoscopic imaging, for example<sup>12</sup>. These curricular updates highlight the disparity that occurs between the language used in anatomy laboratories and the clinic or, mainly, in surgery. The surgeon uses Mayo's vessels as a reference for an incision between the pylorus and the first portion of the duodenum; the radiologist describes Gerota's fascia on imaging; the clinician says there was disease in Wirsung's canal. The fact is that eponyms are used daily in medical practice and are part of tradition, culture, and history, and the proposals for their abolition do not even convince most Health Sciences professionals<sup>13</sup>.

The AT is extensively used while the student is taking the basic sciences classes. However, when beginning the study of clinical sciences, the anatomical terminology usage regresses so that the use of eponyms and obsolete terms becomes commonplace<sup>14</sup>.

Thus, we believe that, although the use of AT is essential, the use of eponyms can be promoted as a complement to the conventional study of Anatomy, not only for presenting aspects of greater erudition and, but also aiming at those who wish to get deeper involved into the rich history of this millenary science. The AT use, associated with eponyms, certainly promotes an essential and primordial dialogue between the basic sciences and clinical practice.

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### Mini Curriculum and Author's Contribution

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