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## Use of medical eponyms and obsolete anatomical terms during the 13<sup>th</sup> Colombian Congress of Morphology 2017

*Uso de epónimos médicos y términos anatómicos obsoletos durante el XIII Congreso Colombiano de Morfología de 2017*

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### Abstract

**Introduction:** Medical eponyms are names given to different body structures after the people who discovered them. They have been used for centuries and have deep cultural roots, mainly in the medical sciences field, but they do not provide relevant information on the anatomical structure they denote.

**Objective:** To identify the medical eponyms and obsolete anatomical terms used during the 13<sup>th</sup> Colombian Congress of Morphology.

**Materials and methods:** The 52 oral presentations given during the 13<sup>th</sup> Colombian Congress of Morphology, held in October 2017 at Universidad del Norte, Barranquilla, Colombia, were analyzed to quantify, in terms of percentage, the use of medical eponyms and obsolete anatomical terms.

**Results:** Medical eponyms were used in 53.84% oral presentations, while obsolete anatomical terms were identified in 21 presentations.

**Conclusion:** It was confirmed that, in general, professors, researchers and other health professionals who participated in the congress do not use Terminología Anatómica as a reference source to name different body structures, which produces both communication and knowledge transfer problems.

**Keywords:** Eponyms; Anatomy; Terminology (MeSH).

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### Resumen

**Introducción.** Los epónimos médicos son nombres que se adjudican a ciertas estructuras corporales en honor a los personajes que las descubrieron. Estos se han usado en el lenguaje morfológico por muchos siglos y han generado un enorme arraigo cultural, principalmente en las ciencias médicas, sin embargo, no brindan información relevante sobre la estructura anatómica en sí.

**Objetivo.** Identificar los epónimos y términos anatómicos obsoletos usados durante el XIII Congreso Colombiano de Morfología.

**Materiales y métodos.** Se analizaron los 52 trabajos que se presentaron durante el XIII Congreso Colombiano de Morfología, celebrado en la Universidad del Norte de Barranquilla (Colombia) en octubre de 2017, con el fin de cuantificar porcentualmente el uso de epónimos y términos anatómicos obsoletos.

**Resultados.** Los epónimos estuvieron presentes en 28 ponencias y los términos anatómicos obsoletos se usaron en 21.

**Conclusión.** Se comprobó que, en general, los profesores, investigadores y demás profesionales de la salud que participaron en el congreso no usan la Terminología Anatómica como referente para nombrar las distintas estructuras corporales, lo que genera problemas de comunicación y transmisión del conocimiento.

**Palabras clave:** Epónimos; Anatomía; Terminología (DeCS).

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## Introduction

The purpose of international standards on human anatomical terminology is to unify the language related to morphology used in medical sciences and to facilitate the teaching-learning process. Therefore, it does not pursue aesthetic or recreational purposes, as literary language does.<sup>1</sup>

Medical terms used in morphology date back to 25 centuries ago, and it is estimated that until the end of the 19<sup>th</sup> century, there were about 50 000 anatomical terms to name just over 5 000 body structures.<sup>2</sup> This proliferation of terms included medical eponyms — names given to certain body structures in honor of their discoverers—, which generated confusion and made communication difficult between anatomists,<sup>3</sup> histologists<sup>4,5</sup> and embryologists.<sup>4</sup>

With the creation of the Basle Nomina Anatomica in 1895 and the subsequent codes of terminology, the multiplicity of terms used to name the same structure began to be refined, allowing morphologists and other health professionals to begin to speak the same language; however, the use of eponyms has persisted. These terms do not provide any relevant information<sup>6</sup> about the structure under study, and its use is inconsistent, arbitrary and often influenced by the geography and local culture of the time.<sup>7</sup> In this sense, it could be said that the allocation of these names has some degree of randomness<sup>8</sup> and injustice, constituting a blunder for the logic of current thinking.<sup>9</sup> Although the declaration of the International Committee on Anatomical Terminology in 1933<sup>10</sup> proposed the elimination of these terms, their use remains a controversial issue.<sup>11</sup>

During the 13<sup>th</sup> Federative International Congress of Anatomy in 1989, the International Federation of Association of Anatomists (IFAA) created a new Federative International Committee on Anatomical Terminology (FICAT),<sup>12</sup> which has the task of reviewing, correcting and updating international anatomical terminology to facilitate the learning of this scientific discipline and make communication among medical science professionals clear and fluid, thus minimizing the possibility of errors and misunderstandings.<sup>5</sup> Thus, in 1998, FICAT published the book Terminologia Anatomica, which compiles all the necessary terms to name the different anatomical structures; there, each name provides information that allows associating the morphological characteristics of a structure with its function.<sup>13</sup>

On the other hand, in 2009 the Pan American Association of Anatomy (PAA) created the Ibero-Latin American Symposium on Anatomical, Histological and Embryological Terminology (SILAT), which is an open group of experts in morphology from most Latin American countries that study, analyze, translate, disseminate and promote international morphological terminology,<sup>2</sup> always respecting the parameters established by FICAT in Terminologia Anatomica. Furthermore, this association ensures that all sources of scientific dissemination, whether oral or written, use appropriately the official language. However, despite its worldwide dissemination, most professionals of the health sciences are unaware of or unfamiliar with the correct use of this work,<sup>14</sup> so the use of obsolete terms and eponyms is common among them, mostly in the clinical and surgical areas. Bearing in mind that eponyms are not official terms, they should not be used for

anatomical description, since they make communication difficult and hinder the teaching-learning process; in this sense, they can only be of historical interest.<sup>15,16</sup>

Based on the above-mentioned concerns, the objective of the present study was to identify the obsolete eponyms and anatomical terms used during the 13<sup>th</sup> Colombian Congress of Morphology.

## Materials and methods

The 52 papers exposed during oral presentations at the 13<sup>th</sup> Colombian Congress of Morphology, an event held at the facilities of the Universidad del Norte in Barranquilla (Colombia) in October 2017, were analyzed. The eponyms and obsolete anatomical terms used during each of the presentations were identified and quantified, and the percentage of papers that did not use correctly the terms included in Terminologia Anatomica was established. Data were taken in person by the authors after attending each and every one of the presentations.

Works that analyzed eponyms from a historical point of view and those that included chemical names of colors, pathological entities and biological rules, as well as medical doctrines and study parameters, were excluded from the study.

## Results

Of the total number of oral presentations, 28 (53.84%) used and named the following eponyms repeatedly: Golgi apparatus, Gantzer muscle, circle of Willis, Langerhans cells, Merkel cells, Meissner corpuscles, Kupffer cells, Graafian follicle, Meckel's diverticulum, space of Disse, Hesselbach's triangle, Ito cells, Fallopian tube, Pitwise cells, Gerdy's tubercle, canals of Hering, Achilles tendon, Kiernan's lobule and Glisson's capsule. Moreover, the following obsolete anatomical terms were used repeatedly in 21 presentations (40.38%): *músculo pellejero* (platysma muscle), *huevo supra esternal* (suprasteral notch), *epiplón* (omentum), *válvulas conniventes* (circular folds), *líquido cefalorraquídeo* (cerebrospinal fluid), and *cuero cabelludo* (scalp).

## Discussion

This study shows that many professors, researchers and other health professionals use a morphological language that does not match the international anatomical terminology. This suggests that the official FICAT book is not being used as a reference for naming the different body structures, perhaps because they do not know it or because they are reluctant to change their traditional language, factors that were not evaluated in this paper.

This is evidenced by the abundant use of eponyms and obsolete anatomical terms in the papers presented during the 13<sup>th</sup> Colombian Congress of Morphology. It is inconvenient that such works have been accepted and presented in the most important event that brings together professionals and students involved in the field of morphological sciences in Colombia. Thus, the members of the scientific committee appointed for this Congress should have emphasized the correct use of international anatomical terminology.

Certain knowledge is incorporated during the learning process, but there are emotional bonds with the

language used by the professors during the training. In this sense, if the terminology used in the teaching of the medical sciences is not appropriate, the students end up incorporating eponyms and obsolete anatomical terms into their vocabulary that will eventually make learning and communication difficult.

Eponyms, in general, do not describe the findings associated with a disease or with the structure to which they are associated;<sup>17</sup> therefore, they do not provide any relevant information that would allow establishing or knowing what the structure is.<sup>6</sup> However, the defenders of their use argue that scientific names are more difficult to remember and communicate.<sup>17</sup>

The names in Terminologia Anatomica were designed using an analytical method and morphofunctional reasoning that allowed constructing a well-structured morphological language,<sup>5</sup> in which the terms intrinsically contain anatomical and functional information that clearly describes each structure. In contrast, naming a structure by its eponym only recalls the name of the historical figure that first discovered or described it, but does not provide any information on the structure itself. Therefore, all types of academic dialogue and all scientific work that is published —whether oral or written—, and that involve morphological sciences, should advocate for the correct use of international anatomical terminology, regardless of the language. In this way, it is possible to guarantee that the information that is being transmitted will be received in a clear and precise manner.

Terminology is a specialized linguistic tool that every science uses to transmit knowledge accurately and unambiguously; it is the tool that allows for the universal understanding of scientific and technical communication.<sup>18</sup> However, if professors, experts, and researchers in the field of morphological sciences do not comply with the precepts established by FICAT regarding the correct use of terminology, and instead persist in the use of an unofficial language with a predominance of eponyms and obsolete anatomical terms, they will be leading to a terminological chaos that affects understanding.<sup>6</sup> This is precisely what has happened in important events such as the 13<sup>th</sup> Colombian Congress of Morphology in 2017, the 18<sup>th</sup> Congress of International Federation of Associations of Anatomists, held in Beijing (China) in 2014,<sup>9</sup> and the 2<sup>nd</sup> Peruvian Congress of Morphological Sciences, held in March 2018 in Lima (Peru).

This lack of clarity in communication due to the misuse of terminological language is worrisome, since the transmission of morphological knowledge is hindered by not being captured or learned as it should be, and this is reflected in learning problems and school failure.<sup>19,20</sup> This creates an urgent need to reinforce the appropriate use of international anatomical terminology among the new generations of students and health professionals, which will prevent the continued use of obsolete eponyms and terms in and out of the classroom in the near future.<sup>21</sup> Thus, professors have the responsibility to eliminate eponyms from their vocabulary and prevent them from further use within the descriptive language of morphology. In general, eponyms should be relegated to the field of medical history, in order to preserve the historical memory of the people who made great contributions to morphological knowledge; they can also be used in regionalism dictionaries.<sup>22</sup>

## Conclusion

The findings of the present study allow concluding that, at least in the 13<sup>th</sup> Colombian Morphology Congress, a high percentage of professors, researchers, and other health professionals did not use Terminologia Anatomica as a reference to name body structures, maybe because they did not know that it existed, or because they are used to traditional morphological language, in which eponyms and other obsolete terms predominate. This shortcoming can be attributed to the organization of this congress since the appropriate filters were not established during the selection of papers, nor were the authors informed beforehand that morphological language had to conform to international anatomical terminology.

## Conflicts of interest

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