Global Journal of human-social science: G
Linguistics & Education
Volume 15 Issue 2 Version 1.0 Year 2015
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-460X & Print ISSN: 0975-587X

Evolution of Eponyms use in General Surgery Residency Publications in Argentina

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Abstract- *Introduction:* The tendency to use eponyms and traditional anatomic terms when identifying anatomic structures, often used by the medical community in general, and more often used locally at the surgical sphere, has become deeply rooted. However, both anatomy teaching and international publications today use the International Anatomical Terminology (IAT), effective since 1998 to encourage the use of a universal, uniform and updated terminology. The IAT, as the official list of anatomical structures, aims at facilitating communication and understanding among health professional globally.

Objective: To demonstrate use of the traditional anatomical terminology that employs eponyms in scientific publications in Argentina.

Material And Methods: A statistical retrospective study was performed in which 91 articles published in the Argentinean Journal of Surgical Residents from 2008 to 2013 were reviewed and compared. Reference to anatomical structures was reviewed, as well as its frequency and use.

Keywords: *eponyms; international anatomical terminology; anatomic terms.*

GJHSS-G Classification : *FOR Code: 200499, 139999*

Strictly as per the compliance and regulations of:

Evolution of Eponyms use in General Surgery Residency Publications in Argentina

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Material And Methods: A statistical retrospective study was performed in which 91 articles published in the Argentinean Journal of Surgical Residents from 2008 to 2013 were reviewed and compared. Reference to anatomical structures was reviewed, as well as its frequency and use.

Results: Out of 91 articles published, 14 (15.38%) did not use reference to anatomical structures, and 77 (84.62%) did use reference to anatomical structures; from these 77 articles, 28 (36.36%) included eponyms and 49 (63.64%) used anatomical structures according to the IAT.

Most of the articles in which anatomical structures with eponyms were identified, also made reference to them using traditional anatomical terms but no Latin terms were used to name them.

Conclusion: The correct use of IAT at medical residences involves a permanent educational work during the immediate post-graduation, where the employment of eponyms is rooted. It is our job to stimulate their knowledge and use as part of continuing medical education, so as to improve scientific communication.

Keywords: eponyms; international anatomical terminology; anatomic terms.

I. Introduction

Eponyms are terms in which meaning is associated to a person's name; a name adopting an already existing reference and generally is named after who makes the discovery. The tendency to use these names and traditional anatomic terms when identifying anatomic structures, often used by the medical community in general, and more often used locally at the surgical sphere, has become deeply rooted. However, anatomy teaching as well as international publications today use the International Anatomical Terminology (IAT) (Photograph 4), released in 1998 by the Federative International Committee on Anatomical Terminology (FICAT) that belongs to the International Federation of Associations of Anatomists (IFAA) to encourage the use of an universal, uniform and updated terminology[1,3]. The IAT, as the official list of anatomical structures, aims at facilitating communication and understanding among health professional globally[2,8,9,12] (Photographs 2 and 3). Anatomical training in Argentinean medical schools has been under the influence of classic French anatomical treaties, and their translation to Spanish kept students and graduates away from international terminology, adopting the use of eponyms[4,5,13]. In this way, there are many different anatomical descriptions, both in scientific publications and in the everyday surgical sphere, generating problems when trying to manage without them. This situation brings, in many occasions, communication problems among general surgeons when debating anatomical-surgical issues, surgical pathologies, their diagnoses and treatment. It is necessary to come to an agreement regarding the use of International Anatomical Terminology, highlighting that using the IAT is most convenient as medical information is growing steadily at an international level[6,16].

II. Objectives

To demonstrate the use of the traditional anatomical terminology that employs eponyms in scientific publications in Argentina. To reconcile the Anatomical Nomenclatures, highlighting the use of the IAT within the context that describes a growing impulse to globalize medical information.

III. Materials and Methods

A statistical retrospective study was performed in which 91 articles published in the Argentinean Journal of Surgical Residents from 2008 to 2013 (Photograph 1) were reviewed and compared: In 2008, 10 articles were published; in 2009, 17 articles; in 2010, 20 articles; in 2011, 16 articles; in 2012, 17 articles; and in 2013 11 articles. All of them deal with issues on surgery, clinical surgery, history of medicine, education and research.

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The analysis included reference to anatomical structures, frequency and use of eponyms and the International Anatomical Terminology (IAT) in all articles.

IV. Results

Out of 91 articles published, 14 (15.38%) did not use reference to anatomical structures, and 77 (84.62%) did use reference to anatomical structures (Graphic 1); from these 77 articles, 28 (36.36%) included eponyms and 49 (63.64%) used anatomical structures according to the IAT (Graphic 2).

We identified 32 eponyms in the publications that we revised (Figure 1); 'Calot's triangle' was the most frequently used, appearing in 11 publications (34.37%), followed, according to frequency, by 'Wirsung's duct', 'Cooper's ligament' and 'Scarpa's triangle', each appearing in 5 publications (15.62%); 'Vater's ampulla' was present 4 times (12.50%); and 'Douglas's cul de sac', named 3 times (9.37%). Others were less frequent: 'His's angle', 'Treitz's angle', 'Drummond's arcade', 'Riolan's arcade', 'Ladd's bands', 'Budge–Waller's ciliospinal center', 'Luschka's cystic hepatic ducts', 'Meckel's diverticulum', 'Oddi's sphyncter', 'Morrison's space', 'Bogros's space', 'Toldt I fascia', 'Toldt II fascia', 'Cloquet's gland', 'Bartholin's gland', 'Grüber's ligament', 'Gerard–Marchant's lateral ligament', 'Spieghel's line', 'Müller's muscle', 'Griffith's point', 'Sudeck's critical point', 'Rokitansky-Aschoff's sinus', 'Simon's triangle', 'Petit's inferior lumbar triangle', 'Grynfelt's superior lumbar triangle' and 'Heister's valve' (Graphic 3). Additionally, we observed that most of the articles identifying anatomical structures using eponyms also used traditional anatomical nomenclature; Latin was not used at all.

V. Discussion

For years, anatomical terminology created disagreement and controversy among anatomists. Its main objective was reducing the number of eponyms and synonyms to identify anatomical structures. An endless search for a common language started to facilitate communication and avoid obstacles[3]. Using a universal, uniform and updated terminology is an agreement among morphological discipline professionals and everyday clinical specialists[4,10,11]. The need for communication and understanding among national and international specialists and professionals makes it essential the knowledge and use of IAT. This represents a permanent postgraduate educational effort aiming at encouraging continuous updating and standardizing terms[1,2,5,6], especially in during medical residencies where eponym use has become rooted and generates communication barriers within the scientific community. It is also necessary to implement continuous training programs in order to improve education, eliminate communication obstacles, and refine the academic and professional performance of general surgeons[7,14,15]. As years went by, an increased number of specialists became familiar with and implemented the IAT as the official source of anatomical terminology. But most still does not know of its existence. It is essential to encourage continuous training in order to standardize terms, making the teaching-learning process easier and avoiding misunderstandings in scientific communication among physicians who may be different regarding age, country, and years of expertise. The use of eponyms lacks descriptive weight and can create huge misunderstandings when they have multiple meanings. Specialists in morphological disciplines and those professional who apply these in everyday clinical environments are responsible for encouraging and spreading knowledge of the IAT[7,8].

VI. Conclusions

Anatomy must be explained in the most clear and understanding way, thus minimizing the chance to be misunderstood. Still today, most professionals are not familiar with the existence or name of the International Anatomical Terminology (IAT), though this is the official list of anatomical structures. Scientific publications as well as medical professionals still use the traditional terminology with eponyms to identify anatomical structures. However, Latin names are no longer used.

Correct use of the IAT in medical residencies implies a continuous educational effort during immediate postgraduate courses, where eponym use is deeply rooted. It is our responsibility to encourage knowledge and use, as part of a continuous medical training program, in order to improve scientific communication.

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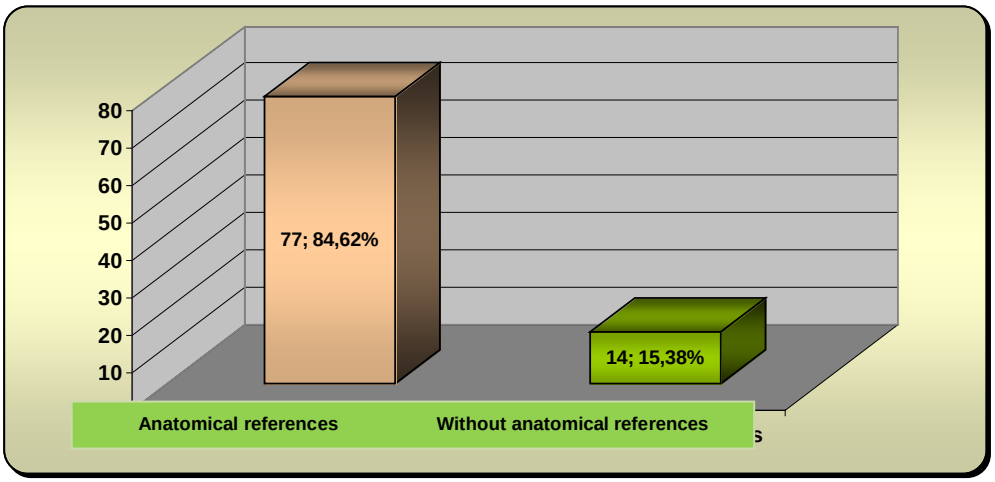
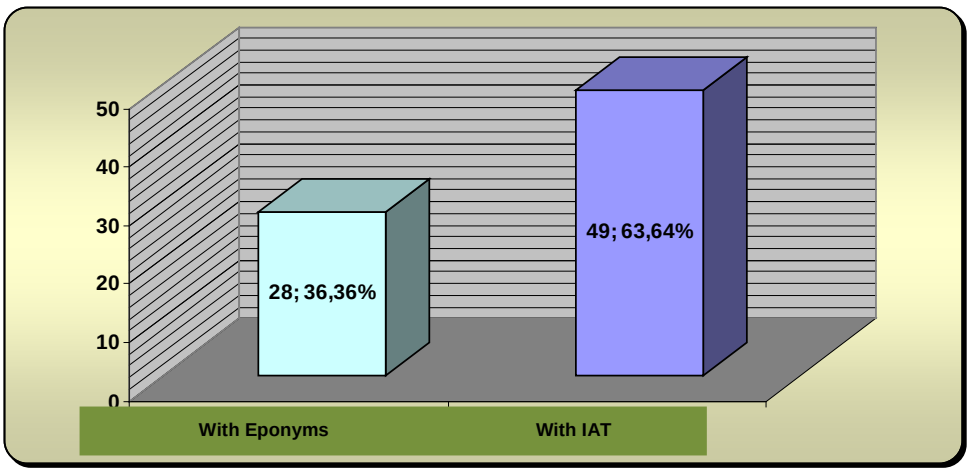
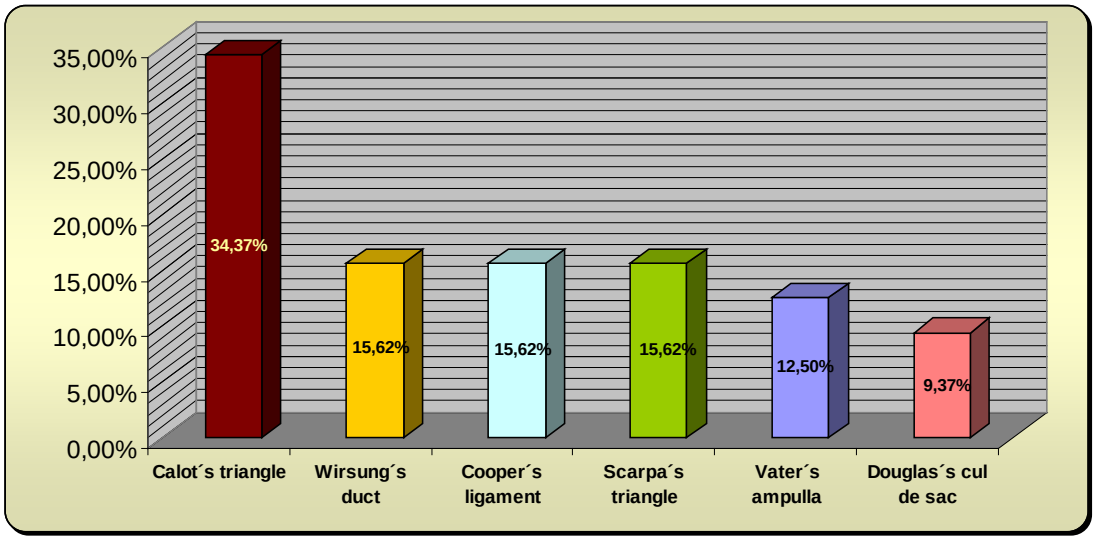


Graphic 1 : Results about the use of anatomical references in reviewed articles.



Graphic 2 : Results about the use of eponyms and International Anatomical Terminology (IAT) in reviewed articles

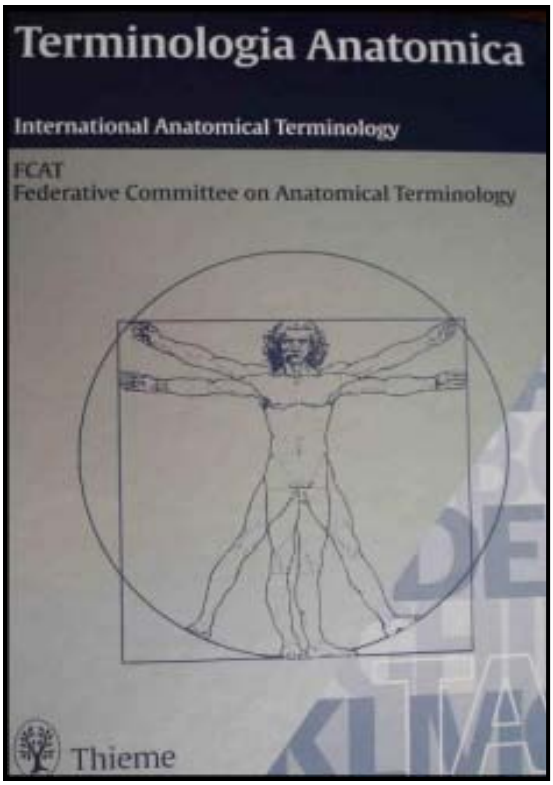


Graphic 3 : Frequency of eponyms used.

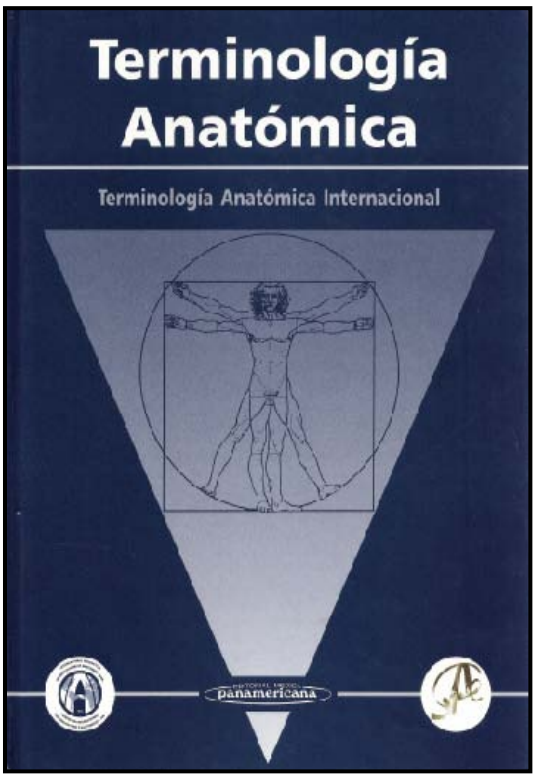
Bartholin's gland
Bogros's space
Budge–Waller's ciliospinal center
Calot's triangle
Cloquet's gland
Cooper's ligament
Douglas's cul de sac
Drummond's arcade
Gerard–Marchant's lateral ligament
Griffith's point
Grynfelt's superior lumbar triangle
Grüber's ligament
Heister's valve
His's angle
Ladd's bands
Luschka's cystic hepatic ducts
Meckel's diverticulum
Morrison's space
Müller's muscle
Oddi's sphincter
Petit's inferior lumbar triangle
Riolan's arcade
Rokitansky-Aschoff's sinus
Scarpa's triangle
Simon's triangle
Spieghel's line
Sudeck's critical point
Toldt I fascia
Toldt II fascia
Treitz's angle
Vater's ampulla
Wirsung's duct

Figure 1 : List of the 32 eponyms used in the Journal articles.

Photograph 1 : Front Cover of the Argentinean Journal of Surgical Residents



Photograph 2 : International Anatomical Terminology (IAT) published in 1998 by Thieme-Stuttgart.



Photograph 3 : International Anatomical Terminology (IAT) published in Spanish by Editorial Médica Panamericana - Madrid, 2001.

62 Anatomia systemica / Systemic anatomy / Anatomía sistémica

A02.3.04.002	**Cavitas thoracis; Cavitas thoracica**	**Thoracic cavity; Thorax**	**Cavidad torácica; Tórax**
A07.1.01.001	**Cavitas pleuralis**	**Pleural cavity**	**Cavidad pleural**
A07.1.02.001	**Pleura**	**Pleura**	**Pleura**
A07.1.02.002	Pleura visceralis; Pleura pulmonalis	Visceral pleura; Pulmonary pleura	Pleura visceral; Pleura pulmonar
A07.1.02.003	Tunica serosa	Serosa; Serous coat	Serosa; Capa serosa
A07.1.02.004	Tela subserosa	Subserosa; Subserous layer	Subserosa; Capa subserosa
A07.1.02.005	Pleura parietalis	Parietal pleura	Pleura parietal
A07.1.02.006	Cupula pleurae	Cervical pleura; Dome of pleura; Pleural cupula	Cúpula pleural
A07.1.02.007	Pars costalis	Costal part	Porción costal
A07.1.02.008	Pars diaphragmatica	Diaphragmatic part	Porción diafragmática
A07.1.02.009	Pars mediastinalis	Mediastinal part	Porción mediastínica
A07.1.02.010	Tunica serosa	Serosa; Serous coat	Serosa; Capa serosa
A07.1.02.011	Tela subserosa	Subserosa; Subserous layer	Subserosa; Capa subserosa
A07.1.02.012	Recessus pleurales	Pleural recesses	Recesos pleurales
A07.1.02.013	Recessus costodiaphragmaticus	Costodiaphragmatic recess	Receso costodiafragmático
A07.1.02.014	Recessus costomediastinalis	Costomediastinal recess	Receso costomediastínico
A07.1.02.015	Recessus phrenicomediastinalis	Phrenicomediastinal recess	Receso frenicomediastínico
A07.1.02.016	Recessus vertebromediastinalis	Vertebromediastinal recess	Receso vertebromediastínico
A07.1.02.017	Lig. pulmonale	Pulmonary ligament	Lig. pulmonar *
A04.4.01.020	Fascia endothoracica; Fascia parietalis thoracis	Endothoracic fascia; Parietal fascia of thorax	Fascia endotorácica; Fascia parietal del tórax
A07.1.02.018	Membrana suprapleuralis	Suprapleural membrane	Membrana suprapleural
A07.1.02.019	Fascia phrenicopleuralis	Phrenicopleural fascia	Fascia frenicopleural
A07.1.02.101	**Mediastinum**	**Mediastinum**	**Mediastino**
A07.1.02.102	Mediastinum superius	Superior mediastinum	Mediastino superior
A07.1.02.103	Mediastinum inferius	Inferior mediastinum	Mediastino inferior
A07.1.02.104	Mediastinum anterius	Anterior mediastinum	Mediastino anterior
A07.1.02.105	Mediastinum medium	Middle mediastinum	Mediastino medio
A07.1.02.106	Mediastinum posterius	Posterior mediastinum	Mediastino posterior
A07.1.03.001	**Cavitas pericardiaca** (vide paginam 77)	**Pericardial cavity** (see page 77)	**Cavidad pericárdica** (ver página 77)

Photograph 4 : Example of a selected page of the organization of Anatomical Terminology. The code of each structure is indicated in the left column