ENGLISH FOUR AND FIVE WORD ANATOMICAL TERMS AND THEIR LATIN EQUIVALENTS IN THE TEXTBOOK *HUMAN ANATOMY(VOL.I)*

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Annotation

This research is aimed to identify the peculiarities of compound English and Latin anatomical terms, based on comparative description of structural forms of compound terms. An essential role in medical vocabulary creation has been played by Greek, Latin, English. This research was based on the use of such methods of linguistic analysis. In the textbook „Human Anatomy", M. Prives, V. Bushkovich, N. Lisenkov offer a progressive view descriptive, evolutionary, functional, and practical anatomy. Medical terms in the texbook can be basically divided into one-word and multiple word terms. One-word terms can be simple words, derived words, compounds, or combination of derived and compound words. Coumpoud anatomical terms can consist of two-five words. The article presents the analysis of four-word and five-word English and Latin anatomical terms and the analysis of their specific configurations.

Key words: *identity of term, difference of terms, Latin anatomical terms, compound anatomical terms.*

Introduction

One of the most common linguistic phenomena is the occurrence of different forms of influence of one language upon another. Although importance of medical language has increased enormously, "there is no recognized discipline called medical linguistics" (Wulff, 2004). It almost always refers to living languages that are still in their natural development or at least language which is influenced is a living one The present paper is designed to describe a unique phenomenon, a significant effect of modern English upon a dead language, Latin, occurring at the turn of the 20th century. The aim of this short study is also to focus attention on this phenomenon especially because sources for its investigations are disappearing very quickly. Latin lost its role as a national language with demise of the Roman Empire, however, it was still a common language of the Roman Catholic Church, European politics and all forms of academic activity. Since the end of the Renaissance and a concomitant increase in the role of national languages, Latin was no more used for interpersonal communication either in academic circles or in international relations (Kucharz, 2016).

Hippocrates' writings from the 5th and 4th centuries BC are considered to be the oldest written sources of western medicine. They contain numerous medical terms that later penetrated to various national medical vocabularies, e.g. diarrhoea, dyspnoe, podagra, etc. At the beginning of the first century AD, Aulus Cornelius Celsus wrote De Medicina - an encyclopaedic overview of medical knowledge based on Greek sources. In his work, he either imported some Greek terms directly, latinized Greek words by replacing Greek endings with Latin ones, e.g. stomachus and brachium, or translated Greek terms into Latin, e.g. kynodontes (Gr.) > dentes canini (L) > canines (Engl.) (dog teeth). During the Middle Ages, at the time of the Renaissance, when Greek was no longer widely understood, the era of medical Latin began. "During the subsequent centuries almost all important medical works were published in Latin (e.g. those by Vesalius, Harvey and Sydenham)". Gradually, however, national languages such as English, French, Italian, Spanish and German gained ground at the expense of Latin. National languages continued in coining new terms with Greek and Latin roots, e.g. nephrectomy, ophthalmoscopy, erythrocyte, leucocyte, etc. (Džuganová, 2019).

In 55and 54BC, Julius Caesar invaded Britain. The Romanization of Britain, however, did not occur until almost 100 years later when expeditionary forces were sent out by the Roman emperor Claudius. Although Latin was the official language during the Roman occupation of Britain, Celtic, the native language of the people of Britain, was little affected by it.As is stated in Dunmore and Fleischer´s Medical Terminology,the English language began its development as an independent language with the migration of Germanic people (Angles, Saxons, and Jutes) from Western Europe across the English Channel to Britain during the 5th and 6th centuries AD. These Germanic invaders, in contact with the Romans from the 1st century BC on, brought with them not only their native language but also the Latin words they had borrowed from the

Romans. Their language, known as Old English or Anglo-Saxon, was a member of the Germanic family of IndoEuropean languages and gradually superseded the Celtic dialects in most of southern Britain. Many Old English words have survived, with some linguistic change, to form the basic vocabulary of the English language (Anglo-Saxon had some basic medical terminology, e.g. head, skull, brain, nose, blood, wound, sore)(Bujalková, 2018). Words borrowed from others languages – mostly Latin, French, and Greek – have been added to the English language.

English medical terminology developed from medieval Latin terminology, which had absorbed a developed Greek terminology. Only a few medical terms come from the oldest developmental period of English language (from Anglo-Saxon). During the Middle Ages, French became an excellent medium for introducing new medical terms developed from Greek/Latin elements. Nowadays English more and more uses its own language material for creation of new terms. Since the 17th century, when the grammar system of Modern English was standardised in its basic features, a constant growth of vocabulary can be observed. This was influenced mainly by the technical and scientific revolution, which brought about a lot of new phenomena that had to be denominated. Besides permanent enrichment of Modern English vocabulary, the most important task in the history of post-Renaissance English was to standardise it because already at that time there was a big discrepancy between its spoken and written forms. This happened by means of vocabularies that started to appear 1755 when Dr. Samuel Johnson published his Dictionary of the English Language in two volumes (Džuganová, 2002).

Employing descriptive and comparative methods, the article analyzes the terminology of one of the fields of medical science – anatomical terminology in the textbook Human Anatomy (1985) by M. Prives, V. Bushkovich, N. Lisenkov. The textbook on human anatomy by M. Prives, V. Bushkovich, N. Lisenkov under the general editorship of prof. M. Prives reflects the data on anatomical science and offers a number of advantages over other textbook. *Human Anatomy* offers a progressive view descriptive, evolutionary, functional, and practical anatomy. The textbook approaches the human organism both analytically, according to organs and systems, and synthetically, as a discrete unit with close ties to the environment, especially to society. The book also contains a discussion of the influence of social factors, including the influence of extreme social conditions, on the structure of the human organism and includes a section on new trends in anatomical science under investigations by Prives. The textbook also contains information on the study of X-ray anatomy, the anatomy of the living human being. The texbook is available both for the traditional view of anatomy as the science of the human body structure and for its presentation of anatomy as the science of the natural laws regulating the structure and development of the human organismin relation to the environment. Anatomy is thus seen not as the stagnant subject of university courses but as a progressive science with important prospects. The texbook has been published four times in Spanish for the use in Latin America (Prives et al., 1985).

The basis of the study is 695 English anatomical terms and 695 Latin anatomical terms (a total of 1390 terms). Compound anatomical terms are divided into: two-word, three-word, four-word, five-word terms. The diversity of the number of elements of compound terms is given by the formula f^1 (t_1 .....t_n), when n = 2, n = 3, n = 4, n = 5. The terms that were found also include repetitive the same Latin terms whose grammatical configurations of English equivalents are different as well as a part of long compound anatomical terms that are like a kind of explanations of concepts (Litevkienė, 2006).

Sometimes the concept of the term does not fit within the boundaries of a “word”, because the term can be both a single word and a constant combination of words (Gaivenis, 2002). Depending on the number of words that make up the term, medical terms, like terms in general, are divided into one-word terms and compound terms (hereinafter, CT). In the nomenclature of anatomy, *Nomina Anatomica*, the axial names of parts of the human body are one-word terms. All one-word Lithuanian and Latin anatomical terms are nouns. One-word anatomical terms make up only a small proprtion of anatomical terms. They are used to name the concepts of the main parts and organs of the human body.

The research object of this article is the English and Latin compound anatomical terms in the textbook *HUMAN ANATOMY(VOL.I)*

Aims of the article. The comparative analysis of syntagmatic relationships of compound anatomical terms in the aspects of coincidence and difference. To achieve that aim, the following objectives are set:

- To discuss English and Latin compound anatomical terms according to the diversification of elements.
- To examine the aspects of difference and coincidence between English and Latin four-word and five-word anatomical terms and their structural groups.
- To systematize diversification aspects of elements of English and Latin terms.

Research material and methods. Using descriptive and comparative methods the terminology of anatomy is analysed. A descriptive analytical method was employed to perform quantitative and qualitative analyses.

In terms of origin, terms are different: they can be formed on the basis of the lexicon of one's own language (Litevkienė, 2006): *wrist joint – articulatio radiocapea* (HA232), *knee cap – patella* (HA248), *hip joint – articulatio coxae* (HA249), *knee joint – articulatio genus* (HA256), *long head – caput longum* (HA336), *saddle joint – articulatio sellaris* (HA126), *true ribs – costae verae* (HA150*) false ribs – costae spuriae* (HA150*), floating ribs – costae fluctuantes* (HA150), *simple glands – glandulae simplices* (HA389), *muscular coat – tunica muscularis* (HA390), *teeth – dente s*(HA395), *gums – gingivae* (HA398), *gal bladder – vesica fellea* (465), *right lung – pulmo dexter* (HA515), *left lung – pulmo sinister* (HA515), *womb – uterus* (HA563); borrowed: *occipital artery – arteria occipitalis* (HA55), *ophthalmic artery – arteria ophthamica* (HA60), *medial cerebral artery – arteria cerberi media* (HA61), *subclavia artery – arteria* subclavia (HA61), *vertebral artery – arteria vertebralis* (HA62), *basilar artery – arteria basila*ris (HA63), *axillary artery – arteria* axillaris (HA65), *brachial artery – areria brachialis* (HA67), *anterior horn – cornu anterius* (HA230), *coronal suture – sutura coronalis* (HA195), *anterior cranial fossa – fossa cranii anterior* (HA197), *humeral condyle – condylus humeri* (HA218), *sacral tuberosity – tuberositas sacralis* (HA137), *coccygeal vertebrae – vertebrae coccygeae* (HA138), *jugular process – processus jugularis* (HA165), *oval foramen – foramen ovale* (HA167), *frontal squama – squama frontalis* (HA176), *frontal sinus – sinus frontalis* (HA177), and, finally, mixed, or hybrids: *mental tubercle – tuberculum mentale* (HA187), *squamous suture – sutura squamosal* (HA190), *lateral ligament – ligamentum laterale* (HA191), *superior orbital fissura – fissura orbitalis superior* (HA193), *pubic tubercle – tuberculum pubicum* (HA239), *lateral inguinal fossa – fossa inguinalis lateralis* (HA312), *falciform margin – margo falciformis* (HA373*), vallate papillae – papillae vallatae* (HA411), *caudate process – processus caudatus* (HA463), *parietal pleura – pleura parietalis* (HA516); *right ventricle – ventriculus dexter* (HA30), *papillary muscles – musculi papillares* (HA30), *left ventricle – ventriculus sinister* (HA31), *fibrous rings – anuli fibrosis* (HA3), *right crus – crus dextrum* (HA34), *left crus – crus sinister* (HA34), *sternocostal surface – facies sternocostalis* (HA43), *deep palmar arch – arcus palmaris profundu*s (HA72), *parietal branches – rami parietals* (HA73), *visceral branches – rami viscerales* (HA75), *femur head – caput femoris* (HA247), *alar folds – plicae alare* (HA258), *navicular bone – os naviculare* (HA263), *trapezius muscle – musculus trapezius* (HA290), *lateral head – caput laterale* (HA336), *tendon sheat – vagina tendinum* (HA352), *medial groove – sulcus medialis* (HA379), *femoral ring – anulus femoralis* (HA379), *muscular coat – tunica muscularis* (HA390), *muscular branches – rami musculares* (HA89), *mamillary bodies – corpora mamillaria* (HA181), *fourth ventricle - ventriculus quartus* (HA197).

One-word English and Latin anatomical terms are nouns. One-word anatomical terms make up only a small portion of anatomical terms. This article excludes one-word derived and compound terms that form a small share of anatomical terms: English one-word terms make up 2,7% of the number of anatomical terms found, Latin one-word terms make up 3,45% of the number of terms found. Most of these anatomical terms are simple English and Latin or Greek root words. One-word terms are used to name the concepts of the main parts and organs of the human body:*bone – os* (HA90), *eyesockets – orbitae* (HA193), *clavicle – clavicular* (HA212), *fontanelles – fonticuli* (HA203), *cheeks – buccae* (HA392), *palate – palatum* (HA393), *teeth – dentes* (HA395), *gums – gingivae* (HA398), *dentine – dentinum* (HA399), *enamel – enamelum* (HA399), *cement – cementum* (HA399), *tongue – lingua* (HA399), *lungs – pulmones* (HA399), *kidney – renes* (HA527), *prostate – prostate* (HA556), *ovary – ovarium* (HA560),*womb – uterus* (HA563), *vagina – vagina* (HA569). Although one-word terms are often considered better and more convenient to use, in science, technology and other special fields of human activity, more complex concepts are usually named by using compound terms, which form the majority of terms in many fields.

Most terms in medical terminology are compound. According to A. M. Rassinoux, (2000), compound terms are most productive. S. W. Haas, R. M. Losee investigated the cases of term use and their frequency in natural languages (Losee, R. M., Haas, S. W., 1995). In their opinion,word combinations can have a precise scientific expression, because the more words make up the term, the more precisely it can be expressed.

According to foreign scientists E. Marečkova, F. Simon, L. Červeny, Latin compound terms form a separate group in medical terminology. Their productivity is determined by the suitability of the Latin language to economically and succinctly express an idea when the native language equivalent is expressed in a periphrasis (Marečkova, Simon, Červeny, 2002). Compound two-word terms denoting the *main* parts and organs of the human body in the international document *Nomina Anatomica*are a minority (Litevkienė, 2006).

It is maintained that there are several times more two-word terms than three-word terms in most scientific fields. Statistically, Latin two-word anatomical terms make up 31% of all found Latin compound anatomical terms; English two-word terms found make up 32%. English five-word terms make up only 1% of all English compound anatomical terms found. Latin five-word terms also make up only 1% of all Latin compound anatomical terms found. The examples show that no English and Latin six-eight-word anatomical terms are found. Supposedly, such Latin and English compound *anatomical* terms occur only in clinical terminology(Litevkienė, 2006).

Let's compare the data presented in the chart.

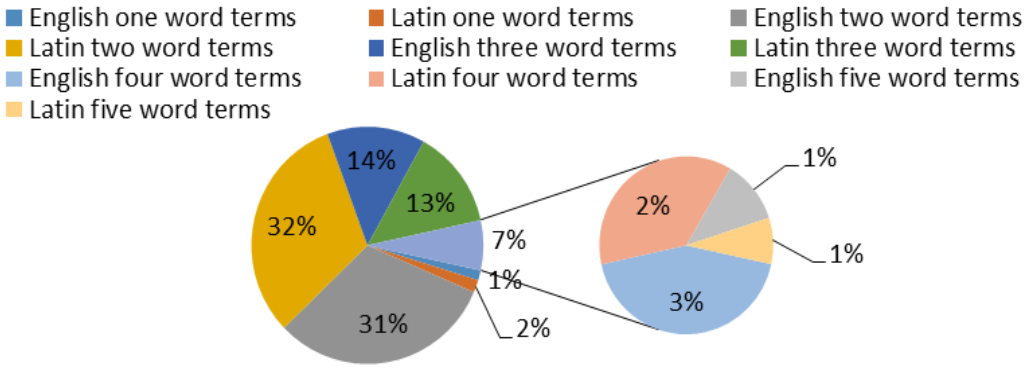

Fig. 1.Frequency of English and Latin compound terms

Four-word terms can be expressed in the formula:
$f^1 (t_1.....t_n) = f (t_1.....t_n)$, when n = 4 (Litevkienė, 2014).
The grammatical configurations of English and Latin four-word terms can be grouped by elements as follows:
English four-word terms◄►Latin four-word terms;
English four-word terms◄►Latin three-word terms.

Thirty five compound term pairs of four-word terms were found. This accounts for only 3% of investigated English anatomical terms. This represents 2% of investigated Latin anatomical terms.

ENGLISH FOUR WORD ANATOMICAL TERMS AND THEIR LATIN EQUIVALENTS
ENGLISH AND LATIN FOUR WORD ANATOMICAL TERMS

The following configurations of English and Latin four-word terms are distinguished:
1.Nominative of an adjective (attribute) + nominative of the comparative adjective (attribute) + nominative of the comparative adjective (attribute) + nominative of a noun (determinative) ≠[2] nominative of a noun (determinative) + nominative of the comparative adjective (attribute) + (attribute) + nominative of the comparative adjective (attribute) + nominative of an adjective (atribute) (Litevkienė, 2014):

$A^3dj_{NP} + Adj_{NC} + Adj_{NC} + S_N \neq S_N + Adj_{NP} + Adj_{NC} + Adj_{NC}$
serratus posterior superior muscle – musculus serratus posterior superior (HA291)
serratus posterior inferior muscle – musculus serratus posterior inferior (HA291)
obliquus capitis superior muscle – musculus obliquus capitis superior (HA294)
obliquus capitis inferior muscle – musculus obliquus capitis inferior (HA294)

2.Nominative of an adjective (attribute) + nominative of the comparative adjective (attribute) + nominative of the mixed formation adjective (attribute) + nominative of a noun (determinative) ≠ nominative of a noun (determinative) + nominative of the mixed formation adjective (attribute) + (attribute) + nominative of an adjective (attribute) + nominative of an adjective (atribute):

[1]The author grounds on the theory Ross Moore, a mathematician of Macquarie University (Sydney) and Nika Draka, a programmer of Leeds University (England) about the construction of compound term computerized systems, symbols and the diversification of compound term systems.
[2] different
[3]S – substantive; A – adjective; P – participle; N – numeral; N_o– ordinal, Pr – pronoun; $_N$– nominative; $_G$– genetive; s – simple; $_C$– comparative;$_S$– superlative; $_c$– compound; $_m$– mixed composition, p - positive

$Adj_{NP} + Adj_{NC} + Adj_{Nc} + S_N \neq S_N + Adj_{Nc} + Adj_N + Adj_N$

deep posterior sacrococcygeal ligament – ligamentum sacrococcygeum dorsale profundum (HA145)

superfacial posterior sacrococcygeal ligament – ligamentum sacrococcygeum dorsalis superficiale (HA145)

3.Nominative of an adjective (attribute) + genetive of a noun (attribute) + nominative of an adjective (attribute) + nominative of a noun (determinative) ≡ nominative of a noun (determinative) + nominative of an adjective (attribute) + genetive of a noun (attribute) + nominative of an adjective (atribute):

$Adj_{NP} + S_G + Adj_{NP} + S_N \equiv^4 S_N + Adj_{NP} + S_G + Adj_{NP}$

levatores costarum breves muscles – musculi levatores costarum breves (HA294)
levatores costarum longi muscles – musculi levatores costarum longi (HA294)
flexor digitorum sublimis muscle – musculus flexor digitorum superficialis (HA339)
flexor policis longus muscle – musculus flexor pollicis longus (HA340)
flexor digitorum profundus muscle – musculus flexor digitorum profundus (HA341)
extensor hallucis longus muscle – musculus extensor hallucis longus (HA366)
flexor digitorum accessorius muscle – musculus quadratus plantae accessories (HA372)
middle pharynx constrictor muscle – musculus constrictor pharyngis medius (HA420)
tensor fasciae latae muscle – musculus tensor fasciae latae (HA)358
extensor carpi ulnaris muscle – musculus extensor carpi ulnaris (HA344)
extensor digitorum longus muscle – musculus extensor digitorum longus (HA366)

4.Nominative of an adjective (attribute) + genetive of a noun (attribute) + genetive of a noun (attribute) + nominative of a noun (determinative) ≠ nominative of a noun (determinative) + nominative of an adjective (attribute) + genetive of a noun (attribute) + genetive of a noun (atribute):

$Adj_{NP} + S_G + S_G + S_N \neq S_N + Adj_{NP} + S_G + S_G$

depressor anguli oris muscle – musculus depressor anguli oris (HA329)
depressor labii inferioris muscle – musculus depressor labii inferioris (HA329)

5.Nominative of an adjective (attribute) + nominative of an adjective (attribute) + nominative of an adjective (attribute) + nominative of a noun (determinative) ≠ nominative of a noun (determinative) + nominative of an adjective (attribute) + nominative of an a adjective (attribute) + genetive of a noun (attribute):

$Adj_{NP} + Adj_{NP} + Adj_{NP} + S_N \neq S_N + Adj_{NP} + Adj_{NP} + S_G$

external oblique abdominal muscle – musculus obliquus externus abdominis (HA302)
internal oblique abdominal muscle – musculus obliquus internus abdominis (HA302)
deep transverse metacarpal ligaments – ligamenta metacarpea transversa profunda (HA236)

6. Nominative of the comparative adjective (attribute) + nominative of a noun (attribute) + nominative of an adjective (attribute) + nominative of a noun (determinative) ≠ nominative of a noun (determinative) + genetive of a noun (attribute) + genetive of an a adjective (attribute) + genetive of the comparative adjective (attribute):

$Adj_{NC} + S_N + Adj_{NP} + S_N \neq S_N + S_G + Adj_{GP} + Adj_{GC}$

greater sulcus petrosal nerve – sulcus nervi petrosi majoris (HA171)
lesser sulcus petrosal nerve – sulcus nervi petrosi minoris (HA171)

7. Nominative of an adjective (attribute) + genetive of a noun (attribute) + nominative of the superlative adjective (attribute) + nominative of a noun (determinative) ≠ nominative of a noun (determinative) + nominative of an adjective (attribute) + genetive of an a noun (attribute) + genetive of the superlative adjective (attribute):

$Adj_{NP} + S_G + Adj_{NS} + S_N \neq S_N + Adj_{GP} + S_G + Adj_{GS}$

extensor digiti minimi muscle – musculus extensor digiti minimi (HA344)
abductor digiti minimi muscle – musculus abductor digiti minimi (HA348)

[4] adaequate

8. Nominative of an adjective (attribute) + genetive of a noun (attribute) + nominative of the superlative adjective (attribute) + nominative of a noun (determinative) ≠ nominative of a noun (determinative) + nominative of an adjective (attribute) + genetive of an a noun (attribute) + genetive of the superlative adjective (attribute):

$$Adj_{NP} + S_G + Adj_{NS} + S_N \neq S_N + Adj_{GP} + S_G + Adj_{GS}$$

groove inferior petrosal sinus – sulcus sinus petrosi inferioris (HA165)

9.Nominative of the comparative adjective (attribute) + nominative of the comparative adjective (attribute) + nominative of an adjective (attribute) + nominative of a noun (determinative) ≡ nominative of a noun (determinative) + nominative of an adjective (attribute) + nominative of the comparative adjective (attribute) + nominative of the superlative adjective (attribute):

$$Adj_{NC} + Adj_{NC} + Adj_{NP} + S_N \equiv S_N + Adj_{GP} + Adj_{GC} + Adj_{GC}$$

anterior superior illae spine – spina illiaca anterior superior (HA239)

10. Nominative of a participle (attribute) + genetive of a noun (attribute) + nominative of the superlative adjective (attribute) + nominative of a noun (determinative) ≠ nominative of a noun (determinative) + nominative of a participle (attribute) + genetive of a noun (attribute) + genetive of the superlative adjective (attribute):

$$P_N + Adj_{NC} + Adj_{NP} + S_N \neq S_N + P_N + Adj_{GC} + Adj_{GC}$$

opponens digiti minimi muscle – musculus opponens digiti minimi (HA372)

11. Nominative of the comparative adjective (attribute) + nominative of an adjective (attribute) + nominative of an adjective (attribute) + nominative of a noun (determinative) ≠ nominative of a noun (determinative) + nominative of an adjective (attribute) + genetive of a noun (attribute) + nominative of the superlative adjective (attribute):

$$Adj_{NC} + Adj_{NP} + Adj_{NP} + S_N \neq S_N + Adj_{NP} + S_G + Adj_{NC}$$

posterior circumflex humeral artery ≠ arteria circumflexa humeri posterior (HA67)
anterior circumflex humeral artery ≠ arteria circumflexa humeri anterior (HA67)

12. Nominative of the ordinal (attribute) + nominative of an adjective (attribute) + nominative of an adjective (attribute) + nominative of a noun (determinative) ≠ nominative of a noun (determinative) + nominative of an adjective (attribute) + nominative of an adjective (attribute) + nominative of a ordinal (attribute):

$$N_{ON} + Adj_{NP} + Adj_{NP} + S_N \neq S_N + Adj_{NP} + S_G + N_{ON}$$

first dorsal metacarpal artery ≡ arteria metacarpea dorsalis prima (HA70)

Let's compare the data presented in the chart.

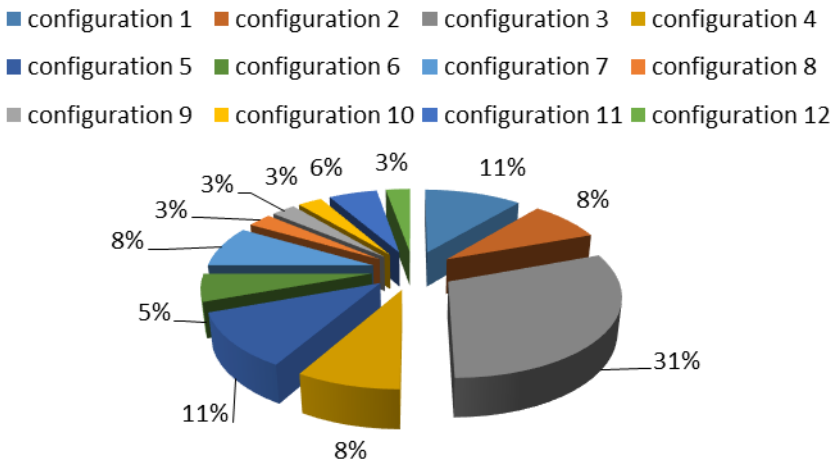

Fig. 2.Frequency of grammatical configurations of English and Latin four word terms

English and Latin four-word terms most commonly occur in three configurations. Their secondary elements are: *English CT – agreed attribute + non-agreed attribute + agreed attribute, Latin CT – agreed attribute + non-agreed attribute + agreed attribute* and *English CT*

– agreed attribute + agreed attribute + agreed attribute, Latin CT – agreed attribute + agreed attribute + non-agreed attribute. Identical terms among English and Latin four-word terms are found in 3, 9, 12 configurations. This represents 37,1% of all four-word terms found in the source. Terms of 8, 9, 10, 12 configurations are rare, they represent only 3%. The most productive are terms of the third configuration, whose secondary elements are: English and Latin terms – *agreed atribute + non-agreed atribute + agreed attribute.*

ENGLISH FOUR WORD ANATOMICAL TERMS AND THREE WORD LATIN TERMS

The following grammatical configurations are distinguished:

1. Nominative of the comparative of an adjective (attribute) + nominative of an adjective (attribute) + nominative of a noun (attribute) + nominative of a noun (determinative) ≠ nominative of a noun (determinative) + nominative of an adjective (attribute) + genetive of a noun (attribute):

$$Adj_{NC} + Adj_{NC} + S_G + S_N \neq S_N + Adj_{NP} + S_G$$

anterior bony nose aperture – apertura piriformis nasi (HA193)

2. Nominative of a noun (attribute) + genetive of a noun (attribute) + nominative of an adjective (attribute) + nominative of a noun (determinative) ≠ nominative of a noun (determinative) + genetive of a noun (attribute) + nominative of an adjective (attribute):

$$S_N + S_G + Adj_{NP} + S_N \neq S_N + S_G + Adj_{NP}$$

skull base external surface – basis cranii externa (HA195)

Only two pairs of three-word and four-word compound terms were found in the source.

ENGLISH FIVE WORD ANATOMICAL TERMS AND THEIR LATIN EQUIVALENTS

Five-word terms can be expressed by the formula:

$$f(t_1.....t_n) = f(t_1.....t_n), \text{when } n = 5 \text{ (Litevkienė, 2006)}$$

Only one percent of the five-word English and Latin terms were found in the source. The grammatical configurations of five-word English anatomical terms and their Latin equivalents are as follows:

1. Nominative of an adjective (attribute) + nominative of a noun (attribute) + nominative of an adjective (attribute) + nominative of an adjective (attribute) + nominative of a noun (determinative) ≠ nominative of a noun (determinative) + nominative of an adjective (attribute) + genetive of a noun (attribute) + genetive of a noun (attribute) + nominative of an adjective (attribute):

$$Adj_{NP} + S_G + Adj_{NP} + S_G + S_N \neq S_N + Adj_{NP} + S_G + S_G + Adj_{NP}$$

extensor carpi radialis brevis muscle – musculus extensor carpi radialis brevis (HA344)

2. Nominative of an adjective (attribute) + nominative of a noun (attribute) + nominative of an adjective (attribute) + nominative of an adjective (attribute) + nominative of a noun (determinative) ≠ nominative of a noun (determinative) + nominative of an adjective (attribute) + nominative of an adjective (attribute) + genetive of a noun (attribute) + genetive of an adjective (attribute):

$$Adj_{NP} + S_G + Adj_{NP} + Adj_{NP} + S_N \neq S_N + Adj_{NP} + Adj_{NP} + S_G + Adj_{GP}$$

flexor tendons common synovial sheath – vagina synovalis communis musulorum flexorum (HA354)

extensor carpi radialis brevis muscle – musculus extensor carpi radialis brevis (HA344)

No identical English and Latin five-word terms were found in the source. Secondary elements in English and Latin four-word terms are distributed as follows:

English terms	*agreed attribute + non-agreed attribute +* ***agreed atribute*** *+ agreed attribute*
Latin terms	*agreed attribute + non-agreed attribute +* ***non-agreed atribute****+ agreed attribute*
English terms	*agreed attribute +* ***non-agreed attribute*** *+ agreed atribute + agreed attribute*
Latin terms	*agreed attribute +* ***agreed attribute*** *+ non-agreed atribute+ agreed attribute*

Conclusions

Compound terms composed of four elements are characterized by structural diversity. The examples found show that more common English four-word terms are of the type Adj_N + Adj_N + Adj_N + S_N, to which the following configurations belong: 1, 2, 4, 7, 8, while more common Latin four-word terms are of the type S_N + Adj_N + $Aadj_N$ + Adj_N and occur in configurations 1, 2, 5, 8. Identical pairs of four-word English and Latin terms found in the source make up 51,2% (third and ninth configurations). Thirty five compound term pairs of four-word terms were found. This accounts for only 3% of investigated English anatomical terms. This represents 2% of investigated Latin anatomical terms.

After analysing 35 English four-word terms and their Latin equivalents, the following regularity was observed: in 61,3% of all English terms of this type, the second and third secondary elementswere *agreed attributes;*in 38,7%,the second and third secondary elementswere *non-agreed attributes* and *agreed attributes*. Four-word English and Latin terms whose secondary elements are the active or passive participle and anordinal are rare.

It was already mentioned in the article that English five-word anatomical terms were not common. They account for 1% of all compound terms found in the source. The analysed examples show that Latin five-word terms are rare. They represent only 1% of all compound terms found in the source. No identical pairs offive-word anatomical terms were found.

Almost half of English four-word terms (41 found in the source) and Latin four-word terms (35 found in the source) have different grammatical configurations. Attributive elements of the majority of Latin four-word terms are comparative adjectives. Only one percent of the five-word English and Latin terms were found in the source. Grammatical configurations of *English five-word terms* and *Latin five-word terms* are different.The analysis of English and Latin compound anatomical terms supplements general research on medical terminology, highlights the commonalities and differences between Latin and English languages, which determine the trends in the formation of terminology in this scientific field, which could be used as guidelines in writing anatomy textbooks, preparing dictionaries of medical terms and anatomy atlases.

Resource

HA – Human Anatomy – Prives, Mikhael; Bushkovich, Viacheslav; Lisenkov, Nikolai. *Human Anatomy (Vol.I)*.1985, Mir Publishers.

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