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ENGLISH ANATOMICAL TERMS, THEIR LATIN AND LITHUANIAN EQUIVALENTS BY STRUCTURE IN *THE HUMAN BODY BOOK*

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Abstract

Latin was a universal scientific language. Early anatomists described the structures they saw in that language, comparing them to common and familiar objects, or borrowing terms from the Greek and Arabic masters before them. In anatomic terminology, common Latin or Greek words are used as such for any part of the body for which the ancients had a name. For many other structures, scientific names have been invented either by using certain classical words which appear to be descriptive of the part concerned, or commonly, by combining Greek or Latin roots to form a new compound term (Lisowski, Oxnard, 2007). This research is based on the use of anatomical terms in the textbook “The Human Body Book”, published by Steve Parker, who offers a view towards practical anatomy. Medical terms in the textbook can be basically divided into one-word and multi-word terms. One-word terms can be simple words, derived words, compounds, or a combination of derived and compound words. Compound anatomical terms can consist of two and five words. More than a half of one-word English anatomical terms are formed on the basis of the English lexis. Most English compound anatomical terms are formed using the terms of Latin or Greek languages. Two-word compound terms form one small group of word combinations used in the scientific language. There are few four-word and five-word terms in the analysed source. No six-to-eight-word compound terms were found. *The object of the article* is the relations between English, Latin and Lithuanian one-word and compound anatomical terms. *The purpose of the article* is to reveal the similarities and differences between compound English, Latin and Lithuanian anatomical terms by structure of components. To achieve the purpose, the following *research tasks* are set: 1. To review the development of Latin anatomical terminology; 2. To compare English, Latin and Lithuanian compound anatomical terms according to the diversification of structure of components; 3. To systematize diversification aspects of components of English, Latin and Lithuanian terms. *Research methods.* The method of theoretical analysis examines scientific literature, comparative analysis of terms enables systematization and generalization of English, Latin and Lithuanian anatomical terms in the resources.

Key words: multi-component terms, English anatomical terms by structure, English, Latin and Lithuanian compound terms, grammatical configurations.

The Latin language as an international language of medical science

Scientific terminology is a system of naming things and phenomena, which helps scientists to make themselves understood. The term used to name a thing or phenomenon must be unambiguous, precise, and clear. Latin and ancient Greek have been used for such names since ancient times. They are almost unchanged but have sufficient word-formation reserves (Česnys, 2001). Because of its constancy and precision, Latin has been an international language of science for centuries. The Latin language provides a coherent matrix for language studies and a basis for every cognition (Litevkienė, 2006). Medical terminology is the language used to describe components and processes of the human body, medical procedures, diseases, disorders, and pharmacology. It is the vocabulary that medical professionals use to describe the body, what it does, and the treatments they prescribe. There is no recognized discipline called medical linguistics, but perhaps there ought to be one. The language of medicine offers intriguing challenges both to medical historians and to linguists. Classical scholars have analysed the contents and language

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of the most ancient medical records in great detail, but the later development of medical terminology has received much less attention. The oldest written sources of western medicine are the Hippocratic writings from the 5th and 4th centuries BC, which cover all aspects of medicine at that time and contain numerous medical terms. This was the beginning of the Greek era of the language of medicine, which lasted even after the Roman conquest, since the Romans, who had no similar medical tradition, imported Greek medicine. Most of the doctors practising in the Roman Empire were Greek, and the works by Galen of Pergamum, from the 2nd century AD, were for centuries valued as highly as the Hippocratic ones (Wulf, 2004).

Anatomical language – like the terminology belonging to all other bodies of knowledge – is a human construct. All these things were decided hundreds of years ago by groups of learned men, who created, debated, and settled on the terms. In those days, they really were all men. The creation of specific anatomical terminology has a history that dates back at least to the Roman Empire. The history of medical terms goes all the way back to the ancient Greeks, specifically Hippocrates. According to the National Institutes of Health, the oldest recorded medical writings are the Hippocratic records from the 4th and 5th centuries BC. Greek and Latin words are still used in modern medical terminology, building on this tradition. In fact, it is maintained that the Greek physician Galen's writings, which have influenced the world of medicine for almost 1500 years, are the main reason why so many Greek words persist in medical terminology today.

Medical terminology originated during the Renaissance along with the emergence of the discipline of anatomy. Practicing in Italian medical schools, early anatomists and physicians used Latin to describe various parts of anatomy. At that time, a Roman aristocrat from Narbonensis by the name of Aulus Cornelius Celsus wrote De Medicina, which was an encyclopaedic overview of medical knowledge, based on Greek sources. He is sometimes called Cicero medicorum on account of his elegant Latin. Celsus faced a difficulty that most Greek medical terms had no Latin equivalents, and the manner in which he solved this problem is of considerable interest from a linguistic point of view. During the Middle Ages, the third language gained importance as many of the classical Greek medical texts were translated into Arabic. Scholars from the Arab world also made original contributions to medical literature, and a few Arabic terms found their way into western medicine. However, at the time of the Renaissance, when Greek was no longer widely understood, both Greek and Arabic works were translated into Latin, and the era of medical Latin began. It was then followed by the era of the national medical languages such as medical English (i.e., ordinary English with the admixture of medical terms), medical French, medical German, medical Italian, and many others. A few of these, especially French, German and English, replaced Latin as vehicles for international communication, but most of others were only used nationally. The national medical languages had much in common since most of the medical terms were derived from medical Latin, but systematic differences present in them still persist (Wulff, 2004).

In 1955, after 60 years of use, revision, and debate, the revised Nomina Anatomica was approved at the meeting of the International Congress of Anatomists in Paris. It was a standard until 1998 with the publication of the new-and-improved *Terminologia Anatomica* that includes both Latin and English terms. And these are just the highlights in the history of anatomical language – there were other revisions and editions between these major milestones (Murray, 2022). English, which belongs to the Proto-Indo-European parent language, was also quite considerably influenced by Latin. English, unlike French, has many borrowed words from other languages. About half of the words in modern English have come from Latin. Although English does not belong to the group of the Romance languages, Latin had a significant influence on English. Richard A. LaFleur, a professor of the classical languages at the University of Georgia, states that various studies have proved a significant connection between the Latin language and other languages. It was common in the activities of every lawyer or scientist. English, unlike French, did not hesitate to borrow words from other languages. There are quite many words in the English language that have not changed at all either semantically or orthographically (Litevkienė, Korosteliova, 2023).

In the modern era in which English is the world's language, the fact that interference of English into the modern language of medicine is getting more powerful cannot be denied. The latest results of research are published mostly in English and new medical terms for diseases, laboratory and investigation procedures are also in English. W. Karwacka

confirms that the scientific world is predominantly English-speaking and major scientific journals publish papers in English (Karwacka, 2015). Scientific papers written in English make up 80 % of the total number of papers according to Montgomery S. L. (2009) and 85 %, according to Kaplan (Kaplan, 2001). In contrast, anatomical terms remain in their original form. Despite the tendency of English to be the new "lingua franca" of medicine, English medical terminology is strongly rooted in Latin. In other words, medical English is Latinized. The latest revision of anatomical nomenclature, "Terminologia Anatomica" (1998), is in Latin that serves as a basis for national versions including English language versions. Medical terminology may be divided into two main parts: anatomical (based on Latin) and clinical (based on Greek). The modern anatomical terminology is based on the centuries-old tradition and knowledge that is constantly revised (Litevkienė, Korosteliova, 2023).

In the first publicistic writings in the field of medicine, Vincas Kudirka (1858–1899) used some anatomical terms that have survived until now. Jonas Basanavičius (1851–1927) started the creation of Lithuanian medical nomenclature as a system. During the interwar period, Jurgis Žilinskas (1885–1957) and his colleagues tried to unify the system, and Petras Avižonis (1875–1939) quite successfully created terms describing the eye structure and ophthalmology in general. After World War II, Lithuanian anatomical terminology developed when translating Russian handbooks and preparing an authentic Lithuanian textbook of anatomy for university students (1972, 1984) as well as the Dictionary of medical terminology (1988). Salezijus Pavilonis (1919–1998) and Kazimieras Tamašauskas (1936–1998) were particularly notable. Nevertheless, Lithuanian anatomical terminology is far from perfect and future generations of anatomists will have much to do (Česnys, 2015).

According to Eigminas (1976), no language was as significant for culture, science, literature, language studies, history, and public life of all European nations in general as the Latin language. Latin was used not only for fiction but also for mathematics, physics, astronomy, ballistics, and cartography (Ulčinaitė, 1993). In the early 19th century, it was established that the stems of Baltic (Lithuanian, Latvian, Prussian) and Italic (Latin, Oscan, Umbrian) languages originated, like of many other languages, from one language called Proto-Indo-European language (Lelis, 2002). Therefore, it is not surprising that Lithuanian and Latin are cognate languages. The rise of the movement of Lithuanian national rebirth at the end of the 19th century speeded up the publication of works in Lithuanian. Popular books, booklets, articles in newspapers and almanacs on various issues of medicine became more numerous. One of the doctors who was educating people on health issues was a famous Lithuanian public figure Vincas Kudirka. Vincas Kudirka used quite a lot of Lithuanian names for body parts and organs, although these terms did not take root in the language. The majority of the words he tried to use as medical terms were words of folk language. He was not content with borrowings but was looking for Lithuanian equivalents to name medical concepts and created some Lithuanian medical terms as a result (Zemlevičiūtė, 2008).

English two-word anatomical terms, their Latin and Lithuanian equivalents in The Human Body Book

This article is theoretical and analytical. Using descriptive and comparative methods, one of the terminologies in the field of medical science – the terminology of anatomy – is analysed. Using a descriptive analytical approach, the quantitative analysis (in general, of elements in English, Latin and Lithuanian compound anatomical terms) and the qualitative analysis (of specific configurations) were performed. To achieve specific objectives, the structural analysis was carried out. Pragmatic criteria for classification of compound terms are applied. The material for the paper was collected from Steve Parker's *The Human Body Book*, published in 2019. The book shows a detailed structure inside the human body. Although dissection has been used for several hundred years, major advances in technology help us to reveal what lies under our skin in meticulous detail. The possibility to see ourselves in this way opened up with the emergence of computed tomography – X-rays that slice through the body, photographing it in sections. These images can then be combined using advanced dimensional images. The combination of microscopic anatomy and three-dimensional images is highly instructive, and this book allows people to more than glimpse at the unique wonders inside the body.

The human body is the most deeply studied and frequently portrayed object in history. Despite its familiarity, it is instinctively absorbing and eternally fascinating. The pages of this book reveal in amazing detail the intricate innermost workings

of the body's cells, tissues, organs, and systems both in the absence and presence of a disease. An in-depth overview of human anatomy and physiology offers an encyclopaedic handbook that covers every system and organ of the human body, examining the structure and functions of organs, tissues, cells, muscles, and bones, and discusses more than two hundred diseases and disorders, all complemented by the latest microscopic imaging and detailed full-colorgraphics. The book describes the structures and workings of the human body at all levels. First, the hierarchy of organisation is described, from molecules such as DNA, to organelles and cells, to tissues and organs. Then the approach is basically functional, focusing on each major system in turn. Every section opens with an overview of its system, and subsequently explores its organs and tissues, to examine how they work and what they do.

At the end of each section common ailments relating to the system are explored. A variety of problems is discussed, including those caused by genetic variation, ageing, infection, and injury. The running order of the sections that follow moves from support and movement (bones and muscles) through control and coordination (nerves and hormones) to basic life support, protection, nourishment (heart, lungs, skin, immunity, digestion, and waste disposal), and reproduction. The final section examines development, ageing, and inheritance (Winston, 2019). According to the usual word order, the attribute in the Latin language goes after the determinative. In Latin, the word order is not very strict, but more often the subject is at the beginning of the sentence; the predicate, at the end; and *the attribute*, *after the determinative* (Dumčius et al., 1999). Thus, it could be stated that Latin medical terminology has an inverted order of words, compared with Lithuanian and English. Usually, the components of English and Lithuanian two-word terms are presented in a certain order: *attribute + determinative;* while of Latin, *determinative + attribute*. According to Gaivenis, this is how our nomenclature of anatomy, botany, and zoology differs from Latin nomenclature, in which species attributes always go after the determinative (2002). Sometimes in Latin, the attribute can come before the determinative. According to Dumčius, Kuzavinis and Mironas, if attributes denoting *place* and *time* precede the determinative, they have a predicate meaning, and if they follow the determinative, they have an attributive meaning (1999). It can be stated that such terms occur rarely. In an inverted sentence, the attribute precedes the determinative to emphasize, to single out the peculiarity outlining a thing or phenomenon but not the thing or phenomenon itself. They state that there is an inverted order of words in Latin (in Latin, *inversion* means *turning over, rearranging, swapping places*; *inversio verborum* means *a change of the (usual) word order*) (Sidwell, 2002). According to these Romanists, it should be noted that in the case of inverted word order, the place of the attribute changes. According to the usual word order, the attribute follows the determinative. It should be emphasized that such type two-word terms are unproductive, although they can also be found in the terminology of other medical fields (Litevkienė, 2006).

English anatomical terms, their Latin and Lithuanian equivalents were chosen as the research material for two reasons. First, English, Latin and Lithuanian anatomical terminology is the first that is learnt by students of the biomedical science field; therefore, it is particularly relevant to perform the analysis of terms in this field of science and to highlight the trends in the use of anatomical terms. Second, the link between anatomical terminology and clinical terminology is evident (Litevkienė, 2006). English and Latin anatomical terms are compared with Lithuanian anatomical terms, discussing the diversity of term structures found in the aspects of coincidence and difference in grammatical configurations. 392 English anatomical terms are found in the source, which are structurally compared with their Latin and Lithuanian equivalents. Anatomical terms, like terms in general, must be short and informative. According to D. Lotte, any scientific-technical term must be precise, short, and convenient so that it can be used as a constituent of a new term. According to the provisions of the PNA, every organ must be named by only one term.

One-word English, Latin and Lithuanian anatomical terms are nouns. One-word anatomical terms make up only a small portion of anatomical terms. This article analyses one-word terms that form a small share of anatomical terms. Most of these anatomical terms are simple English and Latin, Greek, Lithuanian root words. One-word terms are used to name the concepts of the main parts and organs of the human body (Litevkienė, 2006). One-word terms borrowed from Latin and ancient Greek languages are mostly used. Let us compare the data presented in the chart.

English anatomical terms, their Latin and Lithuanian equivalents by structure in The Human Body Book

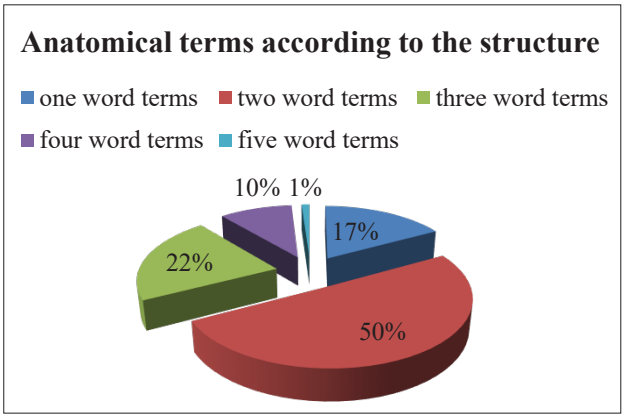

Fig. 1. English anatomical terms, their Latin and Lithuanian equivalents in the aspect of structure

Prepared by the authors

One-word English anatomical terms and their Latin and Lithuanian equivalents

In accordance with the provisions of the PNA (Paris Nomina Anatomica), every organ must be referred to by only one term. Structural names of body parts and organs must be Latin. Every country is free to create equivalents of Latin terms in its native language. The terminology of anatomy and medicine in general, of botany and zoology are Latin, formed according to certain international codes, classes, which are usually approved at international congresses. These codes are followed in standardising the nomenclature of the systematics of these scientific fields.

English and Latin one-word anatomical terms and their Lithuanian equivalents make up 17 percent of all terms found in the source.

Lithuanian medical terminology usually exists in two varieties – national and international (Klimavičius, 1975). In terms of origin, English terms are different: they can be formed on the basis of English lexis: eye14HBB – oculus385MTŽ – akis; nose14HBB – nasus364MTŽ – nosis; tooth14HBB – dens139MTŽ – dantis; mouth36HBB – os398MTŽ – burna; prepuce/foreskin215HBB – preputium 454MTŽ – apyvarpė; nailsHBB23 – unguis565MTŽ – nagas; spleenHBB18 – lienMTŽ303 – blužnis; toothHBB190 – densMTŽ139 – dantis; tongueHBB190 – linguaMTŽ311 – liežuvis; ribHBB148 – costaMTŽ124 – šonkaulis; kidneysHBB212 – renMTŽ480 – inkstas; lungHBB16 – pulmoMTŽ646 – plautis; skullHBB14 – craniumMTŽ125 – kaukolė; or borrowed (as already mentioned, Latin and ancient Greek are mostly used): meningesHBB14 – meningesMTŽ332 – smegenų dangalai, cerebellumHBB14 – cerebellumMTŽ98 – smegenėlės, pharynxHBB14 – pharynxMTŽ433 – ryklė, femurHBB20 – femurMTŽ201 – šlaunikaulis, esophagusHBB36 – oesophagus MTŽ387 – stemplė, epiglottisHBB190 – epiglottisMTŽ180 – antgerklis, coccyxHBB97 – coccyxMTŽ111 – stuburgalis, sacrumHBB97 – sacrumMTŽ490 – kryžkaulis, pharynxHBB190 – pharynxMTŽ433 – ryklė, humerusHBB17 – humerusMTŽ249 – žastikaulis. One-word Lithuanian equivalents are formed on the basis of Lithuanian lexis. No Lithuanian borrowed words or words derived from Latin and ancient Greek languages were found in the source. In terms of origin, English one-word anatomical terms can be borrowed or formed on the basis of English lexis. Almost three quarters of terms are formed on the basis of English lexis. Let us look at the Figure 2.

Fig. 2. English one-word anatomical terms by origin

Prepared by the authors

English compound anatomical terms, their Latin and Lithuanian equivalents

A two-word term can be expressed as follows:

CT (t_1 …….t_n), t_1–t_n – terms; n is the number of components of the compound term.The terms in parentheses (in French: *parenthēse* < *gr. parenthesis*-insertion-brackets to connect several words or several lines. TŽŽ, 2003) are referred to as components of the compound term. Thus, according to the previously discussed signs, two-word anatomical terms can be expressed as follows: CT (t_1 ……t_n) = (t_1 ……t_n), when $n = 2$ (Litevkienė, 2006).

Compound terms, as a separate type of terms, were first distinguished and named by famous Lithuanian linguist J. Jablonskis, reviewing "*Lietuvių kalbos gramatika*" ("Grammar of the Lithuanian language"), written by K. Jaunius in 1913. He called the terms made up of several words *composite terms* (Gaivenis, 1975). In foreign linguistic literature, clinical terms are mostly discussed. English surgical terms were discussed by Ruch (2004), Baud (2004), Lovis (2013) and other foreign scholars. In their opinion, most of the terms in this field consist of compound and composite terms (Litevkienė, 2006). 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 using compound terms, which make up "the majority of terms in many fields" (Zemlevičiūtė, 2005).

This part of the paper discusses English, Latin compound anatomical terms and their Lithuanian equivalents. They usually consist of two or three words. Multi-word (four-five-word) compound terms are very rarely found in the source. As it can be seen from the chart above, half of the compound terms found are terms formed of two components (196 terms in total).

Configurations of English two-word anatomical terms and their Latin and Lithuanian equivalents

According to Litevkienė (2006), two-word English, Latin anatomical terms, their Lithuanian equivalents form eight more frequently used types of grammatical configurations:

1	Adj_{NP} +	S_N	↔	S_N +	Adj_{NP}	↔	S_{NS}		
2	Adj_{NP} +	S_N	↔	S_N +	Adj_{NP}	↔	S_N +	Adj_{NP}	
3	N_O +	S_N	↔	S_N +	N_O	↔	S_N +	N_O	
4	Adj_{NP} +	S_N	↔	S_N +	Adj_{NP}	↔	S_N +	S_G	
5	Adj_{NP} +	S_N	↔	S_N +	S_G	↔	$Adjp_G$ +	S_G +	S_N
6	P_N +	S_N	↔	S_N +	P_N	↔	P_N +	S_N	
7	P_G +	S_N	↔	S_N +	P_N	↔	P_N +	S_G	
8	Adj_{NC} +	S_N	↔	S_N +	Adj_{NC}	↔	Adj_N +	S_N	

The following grammatical configurations are characteristic of two-word English and Latin anatomical terms and their Lithuanian equivalents:

1. Nominative of an adjective (attribute) + nominative of a noun (determinative) ≡ nominative of a noun (determinative) + nominative of an adjective (attribute) ≠ nominative of a noun (determinative) (Litevkienė, 2014):

canine teethHBB192 – dentes caniniMTŽ140 – iltys; carpal bonesHBB50,56,61 – ossa carpiMTŽ400 – riešakauliai; spinal cordHBB14 – medullaMTŽ328 – smegenys; occipital boneHBB58 os – occipitaleMTŽ399 – pakauškaulis; parietal boneHBB58 – os parietaleMTŽ399 – momenkaulis; zygomatic boneHBB58 – os zygomaticum – skruostakaulisMTŽ399; palatine boneHBB58 – os palatinumMTŽ399 – gomurikaulis; hip boneHBB52 – os illiumMTŽ398 – klubakaulis; frontal boneHBB58 – os frontaleMTŽ398 – kaktikaulis; lacrimal boneHBB58 – os lacrimaleMTŽ398 – ašarikaulis; corpus cavernosumHBB215 – corpus cavernosumMTŽ122 – akytkūnis; corpus spongiosumHBB215 – corpus spongiosum MTŽ122 – kempinkūnis.

2. 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 noun (determinative):

lateral ventricleHBB14 – ventriculus lateralisMTŽ586 – šoninis skilvelis; small intestineHBB36 – intestinum tenueMTŽ276 – plonoji žarna; large intestineHBB36 – intestinum crassumMTŽ276 – storoji žarna; corpus callosumHBB14 – corpus callosumMTŽ122 – didžioji jungtis; medulla oblongataHBB14 – medulla oblongataMTŽ329 – pailgosios smegenys; intervertebral discHBB15 – discus intervertebralisMTŽ151 – tarpslankstelinis diskas; outer earHBB14 – auris externaMTŽ65 – išorinė ausis; internal earHBB14 – auris internaMTŽ65 – vidinė ausis; thyroid cartilageHBB14 – cartilago thyroideaMTŽ93 – skydinė kremzlė; spinosous processHBB14 – procesus spinosusMTŽ456 – keterinė atauga; central veinHBB36 – vena centralisMTŽ579 – centrinė vena; left atriumHBB16 – atrium dextrumMTŽ64 – dešinysis prieangis; right ventricleHBB16 – ventriculus dexterMTŽ586 – dešinysis skilvelis; left ventricleHBB16 – ventriculus sinisterMTŽ586 – kairysis skilvelis; frontal sinusHBB15 – sinus frontalisMTŽ501 – kaktinis antis; nasal cavityHBB15 – cavum nasiMTŽ95 – nosies ertmė; upper lipHBB15 – labium superiusMTŽ287 – viršutinė lūpa; lower lipHBB15 – labium inferiusMTŽ287 – apatinė lūpa; soft palateHBB15 – palatum molleMTŽ407 – minkštasis gomurys; hard palateHBB15 – palatum durum MTŽ407 – kietasis gomurys; transverse processHBB59 – processus transversusMTŽ456 – skersinė atauga; spinous processHBB59 – procesus spinosusMTŽ456 – keterinė atauga; spinal nerveHBB63 – nervus spinosusMTŽ372 – dyglinis nervas; lateral meniscusHBB66 – meniscus medialisMTŽ334 – šoninis meniskas; tibial nerveHBB85 – nervus tibialisMTŽ373 – blauzdinis nervas; interosseous nerveHBB85 – nervus interoseusMTŽ371 – tarpkaulinis dilbio nervas; frontal lobeHBB92 – lobus frontalisMTŽ316 – kaktinė sritis; lateral sulcusHBB92 – sulcus lateralisMTŽ520 – šoninė vaga; corpus callosumHBB93 – corpus callosumMTŽ122 – didžioji jungtis; mamillary bodyHBB94 – corpus mamillareMTŽ123 – spenelinis kūnas; olfactory bulbusHBB94 – bulbus olfactoriusMTŽ82 – uodžiamasis stormuo; temporal lobeHBB10 – lobus temporalisMTŽ316 – smilkininė skiltis; temporal lobeHBB92 – lobus temporalisMTŽ316 – smilkininės kiltis; interventricular foramenHBB93 – foramen interventricularisMTŽ209 – trapslenkstelinė

English anatomical terms, their Latin and Lithuanian equivalents by structure in The Human Body Book

anga; lateral ventriclesHBB93 – ventriculus lateralisMTŽ586 – šoninis skilvelis; cranial nervesHBB93 – nervi cranialesMTŽ368 – galviniai nervai.

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

cingulate gyrusHBB15 – gyrus cinguliMTŽ235 – juostos vingis; hepatic arteryHBB36 – arteria hepaticaMTŽ52 – kepenų arterija; cervical vertebraeHBB59 – vertebra cervicalisMTŽ588 – kaklo slankstelis; vertebral foramenHBB59 – foramen vertebraleMTŽ210 – slankstelio anga; auricular cartilageHBB106 – cartilago auriculaeMTŽ92 – kaušelio kremzlė; lumbar vertebraHBB18 – vertebra lumbalisMTŽ588 – juosmens slankstelis; optic nerveHBB14 – nervus opticusMTŽ372 – regos nervas.

4. Nominative of a participium (attribute) + nominative of a noun (determinative) ≡ nominative of a participium (determinative) + nominative of an participium (attribute) ≡ nominative of an participium (attribute) + nominative of a noun (determinative):

ascending aortaHBB16 – aorta ascendensMTŽ43 – kylančioji aorta; descending aortaHBB16 – aorta descendensMTŽ43 – nusileidžiančioji aorta, descending colonHBB199 – colon descendensMTŽ114 – kylančioji (gaubtinė) žarna; ascending colonHBB199 – colon ascendensMTŽ114 – nusileidžiančioji (gaubtinė) žarna, afferent arterioleHBB214 – arteriolae afferentesMTŽ57 – aferentinės arteriolės; efferent arterioleHBB214 – arteriolae efferentesMTŽ57 – referentinės arteriolės; abducens nerveHBB98 – nervus abducensMTŽ369 – atitraukiamasis nervas; vas deferensHBB223 – vas defferensMTŽ577 – ištekamoji gysla; vas afferensHBB223 – vas afferensMTŽ577 – įtekamoji gysla; vas aberensHBB223 – vas aberrensMTŽ577– nukrypusi gysla.

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

cerebral cortexHBB14 – cortex cerebri123MTŽ – didžiųjų smegenų žievė; sacroiliac jointHBB18 – arteria sacroilliacaMTŽ59 – kryžmeninis klubo sąnarys; spinal ganglionHBB84 – ganglion spinaleMTŽ218 – nugarinis nervinis mazgas; ganglia cordHBB84 – ganglion cardiacumMTŽ218 – širdinis nervinis mazgas.

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

superior lobeHBB150 – lobus superior MTŽ316 – viršutinė skiltis; inferior lobeHBB150 – lobus inferior MTŽ316 – apatinė skiltis; posterior chamberHBB108 – camera posteriorMTŽ86 – užpakalinė kamera.

7. Nominative of numerale ordinale (attribute) + nominative of a noun (determinative) ≡ nominative of a noun (determinative) + nominative of numerale ordinale (attribute) ≡ nominative of a noun (determinative) + nominative of numerale ordinale (attribute):

third ventricle HBB14 – ventriculus tertiusMTŽ586 – trečiasis skilvelis.

8. Nominative of an adjective (attribute) + nominative of a noun (determinative) ≡ nominative of a noun (determinative) + genitive of a noun (attribute) ≡ nominative of a noun (determinative) + genitive of a noun (attribute):

bone marrowHBB57 – medulla ossiumMTŽ329 – kaulų čiulpai; cingulate gyrusHBB15 – gyrus cinguliMTŽ235 – juostos vingis; gray matter (cerebral cortex)HBB93 – cortex cerebriMTŽ123 – smegenų žievė; white matterHBB93 – cortex cerebelliMTŽ123 – smegenėlių žievė; nasal cavityHBB148 – cavum nasiMTŽ95 – nosies ertmė; pericardial cavityHBB149 – cavum pericardiiMTŽ96 – širdiplėvės ertmė; aortic valveHBB137 – valva aortaeMTŽ575 – aortos vožtuvas; auricular cartilageHBB106 – cartilago auriculaeMTŽ92 – kaušelio kremzlė; lumbar vertebraHBB18 – vertebra lumbalisMTŽ588 – juosmens slankstelis.

Two-word English and Latin anatomical terms as well as their Lithuanian equivalents are the most frequent in the source. The majority of two-word English, Latin and Lithuanian equivalents are two-word anatomical terms, in which secondary components are expressed by positive degree adjectives, the present tense participle, and comparative degree adjectives, and about 21 % of the terms found in the source have secondary components expressed by the genitive of the noun.

The diversity of the configurations of two-word English, Latin and Lithuanian anatomical terms is presented in the chart.

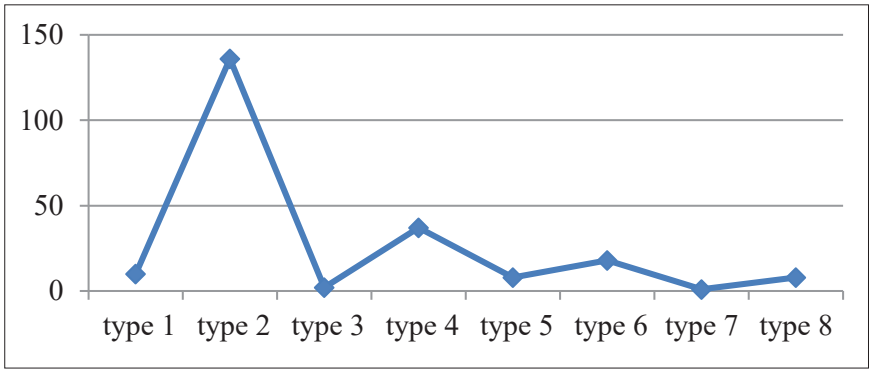

Fig. 3. Diversity of the configuration of two-word English anatomical terms, their Latin and Lithuanian equivalents

Prepared by the authors

A total of 196 two-word terms were found. The largest part of two-word English, Latin terms and their Lithuanian equivalents was found in the following grammatical configurations: $Adj_N + S_N \equiv S_N + Adj_N \equiv Adj_N + S_N$ and $P_N + S_N \equiv S_N + P_N \equiv P_N + S_N$ (respectively, 69,9 % and 18,9 %). The largest part of two-word English, Latin and Lithuanian anatomical terms consists of two-word terms, the secondary elements of which are expressed by positive degree adjectives and active participles in the present tense. Cases where secondary components are expressed by comparative degree adjectives, numerals, and the genitive of the noun are rarer. Two-word compound terms are one small group of word combinations used in the scientific language. They particularly differ from other word combinations in that they can perform the communicative function fully independently (Gaivenis, 1975). Two-word terms should be considered word combinations whose main components are nouns (Litevkienė, 2006). The larger parts are made up of grammatical configurations of type 2, type 4, and type 6.

Configurations of three-word English anatomical terms and their Latin and Lithuanian equivalents

A three-word term can be expressed as follows: CT (t_1 ……t_n) = (t_1 ……t_n), when n = 3.

Three-word English, Latin and Lithuanian terms make up less than a quarter of all analysed compound anatomical terms. Statistically, three-word English, Latin, and Lithuanian terms are used quite often in anatomical terminology. They are surpassed only by two-word terms.

It has been noticed that the following types of grammatical configurations of English, Latin, and Lithuanian three-word anatomical terms occur:

1	Adj_{NP}+	Adj_{NC}+	S_N	↔	S_N+	Adj_{NP}+	Adj_{NC}	↔	Adj_N+	Adj_{NP}+	S_N
2	Adj_{NP}+	Adj_{NS}+	S_N	↔	S_N+	Adj_{NP}+	Adj_{NS}	↔	Adj_N +	Adj_{NP}+	S_N
3	Adj_{NP}+	Adj_{NP}+	S_N	↔	S_N+	Adj_{NP}+	Adj_{NP}	↔	Adj_{NP}+	Adj_{NP}+	S_N
4	N_{NO}+	Adj_{NP}+	S_N	↔	S_N+	Adj_{No}+	N_N	↔	N_{NO}+	S_G+	S_N
5	N_{NS}+	S_G+	S_N	↔	S_N+	N_{NS}+	S_G	↔	Adj_N +	S_G+	S_N
6	Adj_{NC}+	S_N+	Adj_{NP}	↔	S_N+	Adj_{NP}+	Adj_{NC}	↔	Adj_{NP}+	Adj_N+	S_N

The following grammatical configurations are characteristic of three-word English and Latin anatomical terms and their Lithuanian equivalents:

1. Nominative of an adjective positive (attribute) + nominative of a comparative (determinative) + nominative of a noun (determinative) ≡ nominative of a noun (determinative) + nominative of an adjective positive (attribute) + nominative of an adjective positive(attribute) ≠ nominative of an adjective positive pronominal (attribute) + nominative of an adjective positive (attribute) + nominative of a noun (determinative):

rectus abdominis muscleHBB72 – musculus rectus abdominisMTŽ355 – tiesusis pilvo raumuo; levator scapulae muscleHBB74,77 – musculus levator scapulaeMTŽ354 – mentės keliamasis raumuo; liver lobe dexterHBB36 – lobus hepatis dexter – dešinioji kepenų skiltisMTŽ316; common cartoid arteryHBB112 – arteria carotis communisMTŽ51 – bendroji miego arterija.

2. Nominative of an adjective positive (attribute) + nominative of comparative (attribute) + nominative of a noun (determinative) ≡ nominative of a noun (determinative) + nominative of a comparative (attribute) + nominative of an adjective positive (attribute) ≠ nominative of an adjective positive pronominal (attribute) + nominative of a noun (determinative):

rhomboideus major muscleHBB74 – musculus rhomboideus majorMTŽ356 – didysis rombinis

English anatomical terms, their Latin and Lithuanian equivalents by structure in The Human Body Book

raumuo; serratus anterior muscleHBB72,74 – musculus serratus anteriorMTŽ356 – priekinis dantytasis raumuo; gemellus inferior muscleHBB74 – musculus gemellus inferiorMTŽ353 – apatinis dvyninis raumuo; gemellus superior muscleHBB74 – musculus gemellus superiorMTŽ353 – viršutinis dvyninis raumuo; pectoralis major muscleHBB72 – musculus pectoralis majorMTŽ355 – didysis krūtinės raumuo; pectoralis minor muscleHBB72 – musculus pectoralis minorMTŽ355 – mažasis krūtinės raumuo; pectoralis minor muscleHBB72 – musculus pectoralis minorMTŽ355 – mažasis krūtinės raumuo; tibialis anterior muscleHBB73 – musculus tibialis anteriorMTŽ357 – priekinis blauzdos raumuo – tibialis posterior muscleHBB73 – musculus tibialis posteriorMTŽ357 – užpakalinis blauzdos raumuo.

3. Nominative of an adjective positive (attribute) + nominative of superlative (attribute) + nominative of a noun (determinative) ≡ nominative of a noun (determinative) + nominative of an adjective positive (attribute) + nominative of superlative (attribute) ≠ nominative of an adjective positive (attribute) + nominative of an adjective positive pronominal (attribute) + nominative of a noun (determinative):

gluteus maximus muscleHBB75 – musculus gluteus maximus MTŽ353 – didysis sėdmeninis raumuo; gluteus minimus muscleHBB74 – musculus gluteus minimusMTŽ353 – mažasis sėdmeninis raumuo.

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

internal intercostal muscle HBB72 – musculus intercostalis internusMTŽ353 – vidinis tarpšonkaulinis raumuo; superficial peroneal nerveHBB85 – nervus peroneus superficialisMTŽ372 – paviršinis šleivinis nervas; lateral plantar nerveHBB85 – nervus plantaris lateralisMTŽ372 – šoninis pado nervas; medial plantar nerveHBB85 – nervus plantaris medialisMTŽ372 – vidinis pado nervas; medial temporal veinHBB132 – vena temporalis mediaMTŽ582 – vidurinė smilkinio vena; internal jugular veinHBB132 – vena jugularis internaMTŽ581– vidinė jungo vena; external jugular veinHBB132 – vena jugularis externaMTŽ581 – išorinė jungo vena; simplex celular junctionHBB140 – junctura cellulae simplexMTŽ282 – paprastoji ląstelių jungtis; autonomic nervous systemHBB101 – systema nervosum autonomicumMTŽ528 – autonominė nervų sistema; dorsal cutaneous nervesHBB85 – nervus cutaneus dorsalisMTŽ370 – nugarinis odos nervas; lumbar lymph nodesHBB174 – nodi lymphatici lumbaresMTŽ379 – juosmeniniai limfmazgiai; iliac lymph nodesHBB174 – nodi lympathici illiaciMTŽ379 – klubiniai limfmazgiai; left subclavian veinHBB174 – deep inguinal nodesMTŽ175 – nodi inguinales profundiHBB379 – gilieji kirkšnies limfmazgiai; deep femoral arteryHBB132 – arteria femoralis profundaMTŽ52 – gilioji šlaunies arterija; peroneus brevis muscleHBB73 – musculus peroneus brevisMTŽ355 – trumpasis šleivinis raumuo; peroneus longus muscleHBB73 – musculus peroneus longusMTŽ355 – ilgasis šleivinis raumuo; quadratus femoris muscleHBB75 – musculus quadratus femorisMTŽ355 – kvadratinis šlaunies raumuo; vastus lateralis muscleHBB73,75 – musculus vastus lateralisMTŽ358 – šoninis platusis raumuo; vastus medialis muscleHBB73 – musculus vastus medialisMTŽ358 – vidinis platusis raumuo; left pulmonary arteryHBB16 – arteria pulmonis sinisterMTŽ53 – kairioji plaučio arterija; peroneus brevis muscleHBB73 – musculus peroneus brevisMTŽ355 – trumpasis šleivinis raumuo; peroneus longus muscleHBB73 – musculus peroneus longusMTŽ355 – ilgasis šleivinis raumuo; quadratus femoris muscleHBB75 – musculus quadratus femorisMTŽ355 – kvadratinis šlaunies raumuo; vastus lateralis muscleHBB73,75 – musculus vastus lateralisMTŽ358 – šoninis platusis raumuo; vastus medialis muscleHBB73 – musculus vastus medialisMTŽ358 – vidinis platusis raumuo; left pulmonary arteryHBB16 – arteria pulmonis sinisterMTŽ53 – kairioji plaučio arterija.

5. Nominative of a superlative (attribute) + genitive of a noun (attribute) + nominative of a noun (determinative) ≠ nominative of a noun (determinative) + nominative of a superlative (attribute) + genitive of a noun (attribute) ≠ nominative of an adjective positive pronominal (attribute) + genitive of a noun (attribute) + nominative of a noun (attribute):

seventh thoracic vertebraHBB16 – vertebra thoracica septimaMTŽ588 – septintasis krūtinės slankstelis; first thoracic vertebraHBB17 – vertebra thoracica primaMTŽ588 – pirmasis krūtinės slankstelis; tenth thoracic vertebraHBB17 – vertebra thoracica decimaMTŽ588 – dešimtasis krūtinės slankstelis.

6. Nominative of a comparative (attribute) + nominative of a noun (determinative) + nominative of an adjective positive(attribute) ≠ nominative of a noun (determinative) + nominative of an adjective positive (attribute) + nominative of a comparative (attribute) ≡ nominative of an adjective positive (attribute) + nominative of an adjective positive pronominative (attribute) + nominative of a noun (determinative):

superior vena cava HBB16 – vena cava superiorMTŽ579 – viršutinė tuščioji vena; inferior vena cava HBB16 – vena cava inferiorMTŽ579 – apatinė tuščioji vena; inferior nasal conchaHBB58 – concha nasalis inferiorMTŽ117 – nosies apatinė kriauklė; posterior obturatorius tubercleHBB59 – tuberculum obturatorius posteriusMTŽ560 – užpakalinis užtvarinis gumburėlis; major renalis calyxHBB214 – calyx renalis majorMTŽ86 – didžioji inksto taurelė; minor renalis calyxHBB214 – calyx renalis minorMTŽ86 – mažoji inksto taurelė; superior temporal sulcusHBB92 – sulcus temporalis superiorMTŽ521 – viršutinė smilkininė vaga; inferior temporal sulcusHBB92 – sulcus temporalis inferiorMTŽ521 – apatinė smilkininė vaga; inferior temporal sulcusHBB92 – sulcus temporalis inferiorMTŽ521 – apatinė smilkininė vaga; superior temporal sulcusHBB92 – sulcus temporalis superiorMTŽ521 – viršutinė smilkininė vaga.

Diversity of configurations of three-word English anatomical terms, their Latin and Lithuanian equivalents can be seen in the chart:

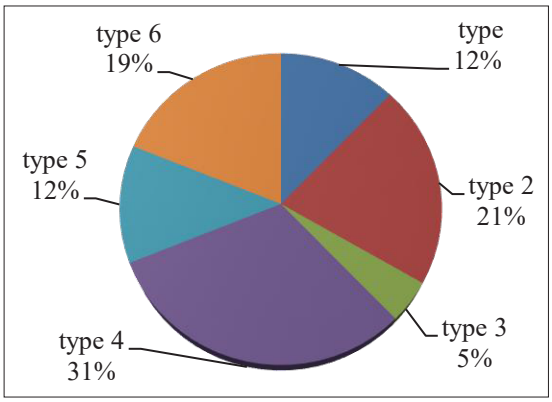

Fig. 4. Diversity of grammatical configurations of three-word English anatomical terms, their Latin and Lithuanian equivalents

Prepared by the authors

The most commonly used three-word English anatomical terms and their Latin and Lithuanian equivalents are the ones whose components include: *Nominative of an adjective + nominative of comparative + nominative of a noun ≡ nominative of a noun + nominative of a comparative + nominative of an adjective + nominative of an adjective + nominative of an adjective + nominative of a noun ≡ nominative of a noun + nominative of an adjective + nominative of an adjective ≡ nominative of an adjective + nominative of an adjective + nominative of a noun.* Compound terms made up of three components may have two secondary components expressed in the same grammatical form (Gaivenis, 1968). In the opinion of K. Gaivenis, it can be stated that this type of compound terms can be found in the terminology of various scientific fields.

The majority of the anatomical terms are three-word English, Latin and Lithuanian anatomical terms, the secondary components of which are positive degree adjectives and, in rarer cases, comparative degree adjectives: of type 4 and type 2 (31 % and 21 %, respectively).

Four-word and five-word English anatomical terms and their Latin and Lithuanian equivalents

A four-word term can be expressed as follows:

CT (t_1 ……t_n) = (t_1 ……t_n), n = 4

Four-word English, Latin and Lithuanian terms account for almost 12 percent of all anatomical terms analysed in the source. Statistically, these terms are quite rarely used in English, Latin and Lithuanian anatomical terminology. They are outnumbered by two-word and three-word anatomical terms.

It has been noted that the following types of grammatical configurations of four-word English, Latin and Lithuanian anatomical terms occur:

1 S_N + Adj_{NP} + S_G + Adj_{NP} ↔ S_N + Adj_{NP} + S_G + Adj_{NP} ↔ Adj_{NP} + S_G + P_N + S_N

2 Adj_{NP} + Adj_{NP} + Adj_{NP} + S_N ↔ S_N + Adj_{NP} + Adj_{NP} + S_G ↔ Adj_{NP} + Adj_{NP} + S_G + S_N

Type 1 of configuration of four-word terms is presented in Figure 5:

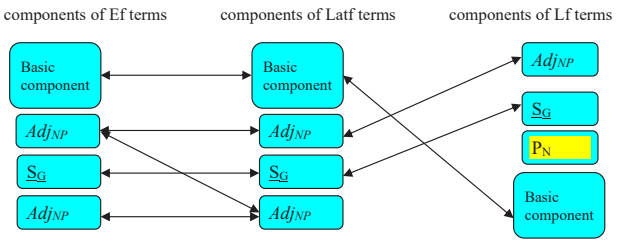

Fig. 5. Type 1 of configuration of four-word terms

Prepared by the authors

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

musculus abductor pollicis brevisHBB72 – musculus abductor pollicis brevisMTŽ350 – trumpasis nykščio atitraukiamasis raumuo; musculus levator labii superiorisHBB72 – musculus levator labii superiorisMTŽ353 – viršutinės lūpos keliamasis raumuo; musculus depressor labii inferiorisHBB72 – musculus depressor labii inferiorisMTŽ352 – apatinės lūpos nutraukiamasis raumuo; internal anal sphincter muscleHBB199 – musculus sphinter ani internusMTŽ356 – vidurinis išangės sutraukiamasis raumuo; external anal sphincter muscleHBB199 – musculus sphinter ani externusMTŽ356 – išorinis išangės sutraukiamasis raumuo; musculus abductor digiti minimiHBB75 – musculus abductor digiti minimiMTŽ350 – mažylio atitraukiamasis raumuo; abductor pollicis brevis muscleHBB72 – musculus abductor pollicis brevis muscleMTŽ350 – trumpasis nykščio atitraukiamasis raumuo; musculus flexor carpi radialisHBB72 – musculus flexor carpi radialisMTŽ352 – stipininis riešo lenkiamasis raumuo; musculus flexor carpi ulnarisHBB72 – musculus flexor carpi ulnarisMTŽ352 – alkūninis riešo lenkiamasis raumuo; musculus flexor digitorum longus HBB73,75 – musculus flexor digitorum longusMTŽ352 – trumpasis pirštų lenkiamasis raumuo; musculus flexor digitorum superficialisHBB72 – musculus flexor digitorum superficialisMTŽ353 – paviršinis pirštų lenkiamasis raumuo; musculus flexor hallucis longusHBB75 – musculus flexor hallucis longusMTŽ353 – trumpasis nykščio lenkiamasis raumuo.

In type 1 four-word English and Latin terms, secondary components are expressed by positive degree adjectives, and in rarer cases, by genitives of the noun. Unlike in English and Latin four-word terms, the third secondary components in Lithuanian terms are expressed by the nominative of the present participle. 80,8 percent of the terms found in the source belong to the first type of configuration.

Type 2 of configuration of four-word terms is presented in Figure 6:

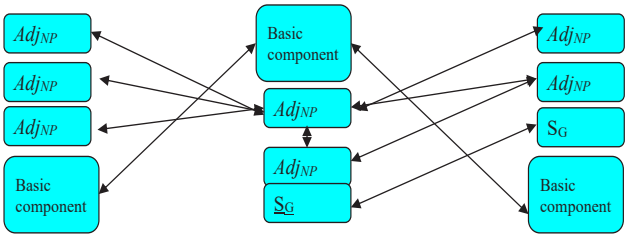

Fig. 6. Type 2 of configuration of four-word terms
Prepared by the authors

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

internal oblique abdominal muscleHBB72 – musculus obliquus internus abdominisMTŽ354 – vidinis įstrižinis pilvo raumuo; external oblique abdominal muscleHBB72 – musculus obliquus externus abdominis MTŽ354 – išorinis įstrižinis pilvo raumuo; internal oblique abdominal musclesHBB72,74 – musculus obliquus externus abdominisMTŽ354 – išorinis įstrižinis pilvo raumuo; internal oblique obturator muscleHBB74 – musculus obliquus internus abdominisMTŽ354 – vidinis įstrižinis pilvo raumuo.

The second type four-word English, Latin and Lithuanian terms found in the source make up 19,2 per cent. English four-word terms have only positive degree adjectives as secondary components, while Latin and Lithuanian terms have positive adjectives and the genitive of the noun.

Only 2 five-word English compound terms and their Latin and Lithuanian equivalents were found in the source:

Nominative of an adjective positive (attribute) + genitive of a noun (attribute) + nominative of a comparative (attribute) + nominative of a comparative (attribute) + nominative of a noun (determinative) ≠ nominative of a noun (determinative) + nominative of an adjective positive (attribute) + genitive of a noun (attribute) + nominative of a comparative (attribute) + nominative of a comparative (attribute) ≠ nominative of an adjective positive (attribute) + genitive of a noun (attribute) + nominative of a comparative

(attribute) + nominative of a comparative (attribute) + nominative of a noun (determinative):

rectus capitis posterior major muscleHBB77 – musculus rectus capitis posterior majorMTŽ355 – didysis užpakalinis tiesusis galvos raumuo; rectus capitis posterior minor muscleHBB77 – musculus rectus capitis posterior minorMTŽ355 – mažasis užpakalinis tiesusis galvos raumuo.

The configuration of five-word English, Latin and Lithuanian anatomical terms can be marked as follows:

$$Adj_{NP} + S_G + Adj_{NC} + Adj_{NC} + S_N \leftrightarrow S_N + Adj_{NP} + \\ + S_G + Adj_{NC} + Adj_{NC} \leftrightarrow Adj_{NP} + Adj_{NP} + Adj_{NP} + \\ + S_G + S_N.$$

Secondary elements of five-word English, Latin and Lithuanian terms are positive degree adjectives, comparative degree adjectives, and the genitive of the noun.

Conclusions

When describing any orientation, location, movement, and direction, the reference is the anatomical position. Anatomical terminology is a form of scientific terminology used by anatomists, zoologists, and health professionals such as doctors, physicians, and pharmacists. Anatomical terminology uses many unique terms, suffixes, and prefixes deriving from Ancient Greek and Latin. Anatomical terms are made up of roots, prefixes, and suffixes. The root of a term often refers to an organ, tissue, or condition, whereas the prefix or suffix often describes the root.

Structural names of body parts and organs must be in Latin. The creation of the terminology of medical sciences, the improvement of terms, and the search for the most suitable word corresponding to one or another concept are a long and painstaking work that was begun at the beginning of the century. Compound terms are predominant in medical terminology. Only word combinations can have a precise scientific expression, since the more words make up the term, the more precisely it can be expressed. Although one-word terms are often considered better and more convenient to use, in science, technology and other specialised fields of human activity, for more complex concepts, compound terms are the most common, and they make up the majority of the terms in many fields. This article discusses English anatomical terms, their Latin and Lithuanian equivalents. They are usually made up of two or three words. Multi-word (four-word and five-word) compound terms are very rare. Steve Parker's *The Human Body Book* analyses one-word and multi-word English anatomical terms and their Latin and Lithuanian equivalents. One-word English anatomical terms account for less than one-fifth of all the terms found in the source. The said English terms are mostly formed on the basis of Latin and ancient Greek languages (about three-quarters of all the terms found). Two-word English anatomical terms and their Latin and Lithuanian equivalents make up half of the terms found. This is the most productive group of compound terms. Most of the two-word English and Latin terms and their Lithuanian equivalents found in the source have the following grammatical configuration: $Adj_N + S_N \equiv S_N + Adj_N \equiv Adj_N + S_N$. The secondary elements in this configuration are the nominatives of positive degree adjectives. There are half as many three-word English terms and their Latin and Lithuanian equivalents. Grammatical configurations *nominative of an adjective (attribute) + nominative of a comparative (determinative) + nominative of a noun (determinative) ≡ nominative of a noun (determinative) + nominative of an adjective (attribute) + nominative of an adjective (attribute) ≡ nominative of a noun (determinative) + nominative of an adjective (attribute) + nominative of a noun (attribute): nominative of an adjective + nominative of an adjective + nominative of a noun ≡ nominative of a noun + nominative of an adjective + nominative of an adjective ≡ nominative of an adjective + nominative of an adjective + nominative of a noun* are the most productive. In the above-mentioned configurations, secondary elements are expressed by positive degree adjectives and comparative degree adjectives. There are only about 10 % of four-word terms; only two five-word English terms with their Latin and Lithuanian equivalents are found. Six-word-to-eight-word compound terms could occur in clinical terminology.

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АНГЛІЙСЬКІ АНАТОМІЧНІ ТЕРМІНИ, ЇХ ЛАТИНСЬКІ ТА ЛИТОВСЬКІ ЕКВІВАЛЕНТИ ЗА СТРУКТУРОЮ В КНИЗІ *THE HUMAN BODY BOOK*

Анотація

Латинська мова була універсальною науковою мовою. Перші анатоми описували цією мовою структури, які вони бачили, порівнюючи їх зі звичайними і знайомими об'єктами або запозичуючи терміни у грецьких і арабських майстрів, які були до них. В анатомічній термінології загальноприйняті латинські або грецькі слова використовуються для позначення будь-якої частини тіла, для якої у древніх була назва. Для багатьох інших структур наукові назви були винайдені або шляхом використання певних класичних слів, які, як видається, описують відповідну частину, або, як правило, шляхом поєднання грецьких або латинських коренів для утворення нового складного терміна (Lisowski, Oxnard, 2007). Це дослідження базується на використанні анатомічних термінів у підручнику "The Human Body Book", виданому Стівом Паркером, який пропонує погляд на практичну анатомію. Медичні терміни в підручнику можна умовно поділити на однослівні та багатослівні. Однослівні терміни можуть бути простими словами, похідними словами, складними словами або поєднанням похідних і складних

слів. Складні анатомічні терміни можуть складатися з двох і п'яти слів. Більше половини однослівних англійських анатомічних термінів утворено на основі англійської лексики. Більшість англійських складних анатомічних термінів утворені за допомогою термінів латинської або грецької мов. Двослівні складні терміни утворюють одну невелику групу словосполучень, що використовуються в науковій мові. Чотирислівних та п'ятислівних термінів в аналізованому джерелі небагато. Термінів-словосполучень із шести-восьми слів не виявлено. Об'єктом статті є відношення між англійськими, латинськими та литовськими однослівними та складними анатомічними термінами. Мета статті – виявити подібності та відмінності між складними англійськими, латинськими та литовськими анатомічними термінами за структурою компонентів. Для досягнення мети поставлено такі дослідницькі завдання: 1. Здійснити огляд розвитку латинської анатомічної термінології; 2. Порівняти англійські, латинські та литовські складні анатомічні терміни за диверсифікацією структури компонентів; 3. Систематизувати аспекти диверсифікації компонентів англійських, латинських та литовських термінів. Методи дослідження. Методом теоретичного аналізу вивчено наукову літературу, порівняльний аналіз термінів уможливив систематизацію та узагальнення англійських, латинських та литовських анатомічних термінів у джерелах.

Ключові слова: багатокомпонентні терміни, англійські анатомічні терміни за структурою, англійські, латинські та литовські складні терміни, граматичні конфігурації.

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