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## LATIN-ENGLISH TRANSLATION OF ANATOMICAL METAPHORS BY A MONOTERM

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*The article outlines the potential of scientific medical metaphor, particularly in its nominative function. It examines the features of translating anatomical and pathoanatomical metaphorical terms into English using single-term equivalents from Latin, substantiates the historical aspect of such choices, and presents a classification of applied modifiers. The experience of domestic and foreign researchers, including Yu. Brazhuk, N. Tsisar, H. Usyk, T. Kyrylenko, O. Belyayeva, M. Malashchenko, Yu. Makarenko and I. Tkachenko have been analysed. The types of translation transformations (according to V. Karaban), morphological structure features, and the preservation of metaphorical meaning in translation have been detailed. The article considers the Latin-to-English translation of zoomorphic, geomorphic, and object-related metaphors, including: cauda equina, fila radicularia, tuberculum costae, os lunatum, collum femoris, lamina arcus vertebrae, crista costae, caput ulnae, caput costae. The reasons for the emergence of the transfer process and types of associations have been explained. It has been established that Latin-to-English translations predominantly feature zoomorphic and geomorphic single-term metaphors. A comparative analysis of term translation has shown that the choice of a single-term equivalent preserves the imagery of the original while making the term more compact and convenient for clinical and educational usage. Furthermore, patterns in the use of modifiers have been identified. The factual material for the study has been drawn from the publications of International Anatomical Terminology (2010) and Dorland's Illustrated Medical Dictionary: English-Ukrainian Edition (2002), which allows for a comprehensive approach to analysing Latin-to-English translation of anatomical terms.*

**Keywords:** *metaphorical binarm term, anatomical metaphor, modifier, metaphorical valence, single-term equivalent.*

**Statement of the problem.** The question of the potential of scientific metaphor, considering the ongoing scientific and technological progress, including in the medical field, remains relevant today.

Modern medical terminology is one of the most developed groups of the lexical composition of the Ukrainian language, which is constantly being replenished and growing due to the unprecedented

intensification of the development of medicine: the introduction and use of new therapeutic methods, the emergence of modern technologies and equipment.

On the other hand, the terminological vocabulary of modern medicine, especially anatomy, is based on Greek and Latin, from which numerous elements have been borrowed. That is why it is impossible to study modern medical vocabulary

without comparing it to Latin, which is the common language among all doctors worldwide.

Modern doctors use standard anatomical nomenclature. Any metaphor is the result of the intellectual and linguistic activity of the individual and is based on a set of assumed background knowledge, formed by the peculiarities of the national worldview. Therefore, it is necessary to conduct a comparative analysis of the semantic transformation of medical figurative vocabulary when translating it from Latin to English and from Latin to Ukrainian.

The relevance of our scientific research is due to the lack of a comprehensive study of anatomical metaphorical binarm terms, the translation of which is carried out by a monoterms. Since this group is small, it usually remains outside the attention of researchers.

**The analysis of recent research and publications.** The medical terminological metaphor attracts the attention of many domestic linguists.

Transformations in the process of Ukrainian-English translation of a medical metaphor have been studied by Yu. Makarenko and Tkachenko (Makarenko & Tkachenko, 2014) have researched the Latin-English translation. O. Beliaieva and M. Malashchenko (Beliaieva & Malashchenko, 2016) have also researched this topic.

The metaphorization processes in medical terms, without comparative analysis with other languages, have been observed in the works by H. Usyk and T. Kyrylenko (Usyk & Kyrylenko, 2020), as well as Yu. Brazhuk (Brazhuk, 2012), N. Tsisar (Tsisar, 2005). Toshiyuki Sakuragi and Judith W. Fuller have analysed the perception of the translation of bodily metaphors among Americans and Japanese, which is also important for understanding cross-cultural aspects of medical terminology in their research work “Body-part metaphors: a cross-cultural survey of the perception of translatability among Americans and Japanese” (Sakuragi & Fuller, 2003).

In our previous studies, we paid much attention to the translation of various groups of anatomical pathoanatomical metaphors (with modifiers – elements of household utensils, names of buildings, parts of mechanisms, objects of the natural world, etc.), considering mainly the translation from Latin into Ukrainian and English metaphors, which have a similar variant of transfer (Lysenko et. al., 2021; Lysenko et. al., 2022; Lysenko et. al., 2023). The atypical translation from Latin into English by a monoterms has been practically omitted from our attention.

**Setting the task.** Atypical variants of the translation of anatomical and pathoanatomical terms-metaphors, in particular monoterms, require comprehensive research.

**The purpose of the research** is to explore examples of translating anatomical and pathoanatomical terms from Latin into English using monoterms.

**Presentation of the main material.** Research into the internal structure of medical terms has shown that medical and pharmaceutical students learn significantly more terms when they understand their morphological and semantic structure. Analysing the components of a term allows students not only to remember the dictionary form, but also to understand the logic of its creation, the connection with the function of the anatomical or pathoanatomical structure. This approach contributes to a deeper assimilation of terminology, facilitates its reproduction in educational and clinical settings, and forms the skills of accurate and consistent use of terms in professional practice. This explains why, when translating medical terms, it is essential to consider not only the lexical composition but also the internal structure and imagery of the word, which directly influence the choice of translation method.

According to V. Karaban, we distinguish three main ways of transmitting metaphorical terms in translation:

- a metaphorical word that has the same or very similar nature of imagery (this group is the most numerous one);
- a metaphorical word which has a different nature of imagery;
- a non-metaphorical word which only conveys the denotative meaning of the English metaphorical word, not the imagery (Karaban, 2001, p. 204).

To this classification, one should add the option of translating a monoterms, usually formed by adding two bases.

At the lexical level, if we take into account the entire array of anatomical terminology, the largest group among those studied is the group of binaries of the subject sphere, the smallest in number is with a modifier belonging to the natural world (geomorphic and zoomorphic metaphors). However, among the terms translated by a monoterms, the group with zoomorphic and geomorphic modifiers prevails.

**Metaphors of the natural world (zoomorphic)**

Translation by a monoterms is an atypical phenomenon that is sometimes used for translating anatomical vocabulary. For example, the basis for the emergence of metaphorical valence in the binarm *auricular atrii* is similarity in shape and functional similarity (ability to be a hole).

Lat.	auricular atrii
Eng.	auricle (Cherkasov et. al., 2010, p. 141)

In Latin-English translation, a monoterminic auricle (ear) is used.

In the following binarms, the cause of metaphorical valence is external similarity (in particular, in shape) and spatial (anatomical) location (from above). For terminological compounds *crista costae*, *caput ulnae*, and *caput costae* we observe a monoterminic metaphor in the Latin-English translation.

Lat.	<i>crista costae</i>	<i>caput ulnae</i>	<i>caput costae</i>
Eng.	crest	head	head (Cherkasov et. al., 2010, p. 46)

Binarm *dens axis* – “tooth of the axial vertebra”, contains the components *dens* – “tooth”; *axis* – “axial vertebra” (second cervical vertebra). A protrusion on the second cervical vertebra that forms an articular ligament with the first cervical vertebra (atlas) and enables head rotation. The reason for the metaphorical valence is the similarity of shape: the protrusion resembles a tooth or a sharp cone-shaped structure.

Lat.	<i>dens axis</i>
Eng.	dens (Cherkasov et. al., 2010, p. 39)

In the Latin-English translation (*dens of axis* – dens), the metaphorical meaning is preserved, as the word *dens* conveys a morphological feature of the protrusion, which facilitates its recognition in an anatomical context. However, the translation is rendered as a monoterminic.

The binarm *collum femoris* – “neck of the femur” contains the modifier *collum* – “neck, narrowed part”. The narrowed part of the femur between the head and the body of the bone provides mobility of the joint.

The reason for the metaphorical valence is the similarity of shape: the thin, narrowed part resembles the neck between the head and the body.

Lat.	<i>collum femoris</i>
Eng.	neck (Cherkasov et. al., 2010, p. 46)

In the Latin-English translation, the metaphorical meaning is preserved: the word “neck” conveys a morphological feature – a narrowed shape – which facilitates the representation of the bone’s structure and its relationship with the joint.

Metaphors of the natural world (geomorphic)

The binarm *tuberculum costae* contains the Latin components *tuberculum* – “tubercle, small elevation”; *costa* – “rib”.

A small elevation on the posterior surface of the rib, to which ligaments and articular surfaces are attached. The reason for the metaphorical valence is the external similarity of shape – the protrusion of the bone resembles a small tubercle or bulge.

Lat.	<i>tuberculum costae</i>
Eng.	tubercle (Cherkasov et. al., 2010, p. 39)

In the Latin-English translation, the metaphorical meaning is preserved, as the word *tubercle* also conveys the idea of a small elevation or bulge.

The Latin binarma *os lunatum* – “moon bone”. One of the carpal bones has a sickle-shaped form. The reason for the metaphorical valence is the external similarity of the shape – the bone resembles a sickle or crescent. The image of the moon is transferred to the anatomical structure to denote the characteristic curvature of the bone.

Lat.	<i>os lunatum</i>
Eng.	lunate (Cherkasov et. al., 2010, p. 45)

In the Latin-English translation, the metaphorical meaning is preserved: *lunate* conveys a sickle-shaped form, which makes it easy to visualise the morphological feature of the bone.

#### Metaphors of the world of things

In the binarm *fila radicularia*, the components are: *filum* – “thread”, *radicularis* – “which concerns the root (nerve)”. Thin nerve fibres that depart from the spinal cord and form nerve roots. The reason for the metaphorical valence is the external similarity – thin, elongated structures resemble threads. The English monoterminic *rootlets* also demonstrate metaphoricality.

Lat.	<i>fila radicularia</i>
Eng.	rootlets (Cherkasov et. al., 2010, p. 245)

The term “*lamina arcus vertebrae*” refers to the “arc plate of the vertebra,” where “*lamina*” means “plate, thin layer” used as a modifier. The lamellar part of the posterior wall of the vertebra, which, together with other elements, forms the spinal canal. The reason for the metaphorical valence is traditionally the external similarity in shape – the thin, flat structure resembles a plate or leaf.

Lat.	<i>lamina arcus vertebrae</i>
Eng.	lamina (Cherkasov et. al., 2010, p. 68)

In Latin-English translation (*lamina arcus vertebrae* – lamina), the metaphorical meaning is preserved: the name conveys the shape and

morphological feature of a part of the vertebra, which helps to easily identify it in an anatomical context.

**Conclusions.** Metaphorization is a multi-functional linguistic phenomenon and is one of the most effective means of knowing the unknown through comparison with already known, meaningful objects of reality. Medical metaphor, performing a nominative function, is designed to reproduce the features of a certain phenomenon or anatomical structure as accurately as possible. For higher education students whose future professional activities are associated with mastering a large

amount of anatomical terminology, understanding the principles of term formation and the role of metaphorization is a necessary condition for the development of professional competence.

At a broader level, the study of the translation of medical metaphors contributes to the awareness of the national specificity of the linguistic worldview. We consider a comparative analysis of English and Ukrainian folk botanical names as a promising direction for further research, which will allow us to trace the patterns of metaphorical thinking in different linguistic cultures more deeply.

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## ЛАТИНСЬКО-АНГЛІЙСЬКИЙ ПЕРЕКЛАД АНАТОМІЧНИХ МЕТАФОР МОНОТЕРМІНОМ

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У статті досліджено потенціал наукової медичної метафори, зокрема її роль у процесі номінування об'єктів. Проаналізовано особливості перекладу анатомічних та патоанатомічних термінів-метафор за допомогою монотермінів з латинської та англійської мов, обґрунтовано причини виникнення перенесення та подано класифікацію використаних модифікаторів. Проаналізовано досвід вітчизняних та зарубіжних дослідників, зокрема Ю. Бражук, Н. Цісар, Г. Усик, Т. Кириленко, О. Беляєвої, М. Малащенко, Ю. Макаренко та І. Ткаченко. Деталізовано види перекладацьких трансформацій (за типологією В. Карабана), особливості морфологічної структури та збереження метафоричності в перекладі. Розглянуто переклад з латини англійською таких зооморфних, геоморфних та предметних метафор предметної сфери, серед яких: *cauda equina, fila radicularia, tuberculum costae, os lunatum, collum femoris, lamina arcus vertebrae, crista costae, caput ulnae, caput costae*. Пояснено причини виникнення процесу перенесення та типу асоціації. Установлено, що в латинсько-англійському перекладі переважають зооморфні та геоморфні монотермінні метафори. Здійснено порівняльний аналіз перекладу термінів, який показав, що вибір монотермінного перекладу зберігає образність оригіналу, водночас роблячи термін більш компактним і зручним для клінічного та навчального використання. Окрім того, виявлено закономірності застосування модифікаторів. Фактичний матеріал для дослідження відібрано за виданнями «Міжнародна анатомічна термінологія» (2010 р.) та «Англо-український ілюстрований медичний словник Дорланда» (2002 р.), що дозволило забезпечити комплексний підхід до аналізу латинсько-англійського перекладу анатомічних термінів.

**Ключові слова:** метафорична бінарма, анатомічна метафора, модифікатор, метафорична валентність, монотермін.

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