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METAPHORICAL PROPERTIES OF SOME LATIN TERMS IN MEDICAL TERMINOLOGY

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Abstract

The article comprehensively studies the metaphorical nature of medical terms in Latin. The purpose of the article is to identify and analyze Latin terms in medical terminology. As a research methodology and research materials, Latin terminology dictionaries, as well as terms selected from Latin textbooks, were used. Descriptive, lexical-semantic, structural, and comparative methods of linguistic research were used in the analysis. The article conducted an etymological, semantic, and structural analysis of 50 medical terms. Based on etymological observations, 5 main groups of terms were classified: zoomorphic terms formed in the image of animals; terms based on a specific action; terms-mythologisms containing names from ancient mythology, as well as terms based on the similarity of external signs. This article studies the structure and origin of some Latin terms related to medical terminology. According to the results of the analysis, examples of metaphorical nature were identified among Latin medical terms.

Keywords

Latin; terms; medical; metaphor; etymology.

Introduction.

Latin is a professionally oriented science that is an integral element of medical specialty training. Medical terms are distinguished by the abundance of metaphors used in Latin. They reflect the universal rules of perception of the surrounding reality, its national, social and professional differences. Medical terminology has been created throughout the history of medicine and continues to develop in parallel with medical science. Each specialist, regardless of his specialty, must correctly use the constantly updated and newly created professional language and understand the rules and laws that determine the emergence of certain terms. Medical workers of any country, along with terms that arose on the basis of their native language, use many international, generally recognized terms that arose on the basis of ancient Greek and Latin. These terms are universal in nature, have entered into general use and are understandable to specialists regardless of their nationality. Such international terms constitute the main fund of medical science in any country, including Russia and Spanish-speaking countries. The semantic changes presented in medical terminology are an indicator of this. The presence of metaphorical terms in medicine is justified by the fact that the structure of the human body itself is created in such a way that it contributes to the emergence of associative connections with the surrounding reality and the emergence of metaphorical names. As is known, to create metaphorical terms, objects and phenomena are used that can have a new semantic meaning and accuracy, significantly different from the original meaning. In medical terminology, typical Russian models of metaphorical transfer are used. Comparisons are mainly visual descriptions of objects (configuration, size, color). The metaphorical system of medical

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terminology combines traditionalism and dynamism: membrane (limbs), palatum (palate) or brachium (shoulder). According to our observations, the most common in medical terminology are zoomorphic metaphors with sound signs, which are characteristic of the animal world, conditionally transferred to the physical state of a person and are found in the description of various symptoms and diseases: mouse squeak, whine, cat crying syndrome, etc. The names of birds, habitats and insects also have a wide associative sphere in medical terminology: goosebumps, bird face, fish mouth, etc. The presented metaphors acquire a new meaning. The next group is anthropomorphic metaphors, the source of which is the physiological characteristics of people, the names of body parts and the properties of a living organism. Anthropomorphic metaphors include terms reflecting the names of parts of the body of an individual and the bodies of animals, their internal organs: laryngeal ventricle, back of the saddle, etc. In order for a medical term to be concise, clear and unambiguous, the following requirements must be observed when compiling it: — adequacy (its content must correspond to modern scientific knowledge about this object); — clarity (the constituent concept must differ sharply in its content and scope from other concepts of the given terminology system); — uniqueness (any term must correspond to only one concept, and any concept must correspond to only one term). Medical terminology: 1) diversity of elements: morbus, im — enfermedad — disease; concrementum; lithus, im — cálculo — vein stone; proctologus, im — proctólogo — specialist in rectal diseases; phthisiater, tri, m — tisiólogo — doctor-specialist in the prevention of diseases and tuberculosis; gastralgia, ae f — dolor estomacal; gastralgia — stomach pain; cardiopathia, ae f — cardiopatía — common heart disease; lupus vulgaris, lupi vulgaris m — lupus — lupus vulgaris; 2) processes, phenomena related to the prevention, diagnosis, examination and treatment of diseases: leucocytus, im — leucocito — white blood cells; laryngitis, itidis f — laryngitis; angina laryngea — inflammatory disease of the larynx; osteomyelitis, itidis f — osteomelitis — inflammation of the bone marrow; pneumonia, ae f — pneumonia — inflammation of the lungs; chondrogenesis, f — concreción — formation of stones in the connective tissue; gastroptosis, f — gastroptosis — prolapse of the stomach; 3) names of operations, methods of examination and treatment, medical instruments, equipment: cholecystectomy, ae f — cholecystectomy — removal of the gallbladder; stomatoscopy, ae f — stomatoscopy — examination of the oral cavity using special optical instruments; hemostasis, f — hemostasis — cessation/stoppage of bleeding; pneumolysis, f — separación de la luz a partir de los tejidos adyacentes — separation of the lung from adjacent tissues; blepharotomy, ae f — blepharotomy — eyelid excision; rhinoplastica, ae f — rinoplastia — plastic surgery of the nose. These examples show that the names of Latin medical terms are almost completely phonetically identical to the medical terms of the Spanish language and, taking into account the transliterated spelling, to the medical terminology of the Russian language. As for the writing of the Spanish medical dictionary, one can observe changes associated with the observance of the rules of writing Spanish grammar. For example: in Spanish, unlike Latin, there are no digraphs ae, oe, th, rh, ch, ph. In writing, they are replaced by the vowels a, e and the consonants t, r, j, f, respectively. Also, in the final elements of medical terms, such as logia, opia/opsia, ectomy, stomia, tomia, patia, graphia, termia, trophia, phonia, etc., the stress, as a rule, falls on the diphthong ía and is written, accordingly, with a graphic accent. However, not all medical term elements follow the rule of stressing the final syllable with the diphthong -ía. Thus, the final element of the Latin medical term -rrhaphia, denoting the process of stitching (glossorhaphia — stitching the tongue) is pronounced in Spanish as rrafia with the stress on the final syllable (glossorraphia). Another common example is the term element therapia, meaning “treatment”, where the main accent is on the use of this element in the sense of “treatment (with)”. In

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Spanish, despite the usual ending -ía, the stress in the word falls on the last syllable and, accordingly, it is written without a graphic stress. For example: balneotherapy - treatment with water procedures (baths), kinesitherapy - physical therapy, that is, movement therapy (kinesia - movement, physical activity). The relevance of this study is undeniable, since a modern medical worker in the world uses more than 60% of Latin terms and metaphors in his professional communication. All this is due to the fact that expressions in all branches of science are replenished due to the active use of the vocabulary and word-forming capabilities of the Latin language. Materials and methods of research The materials for the study were terms selected from dictionaries of Latin terminology and additional textbooks on the Latin language. Descriptive, structural and comparative methods of linguistic research were used to conduct the analysis. Research results Based on etymological observations, 5 main groups of terms were presented: terms based on color types; zoomorphic terms in the image of animals; terms based on a specific action; terms-mythologisms containing a name from ancient mythology, as well as terms based on the similarity of external signs. 1. Terms based on color types. Basically, this group of terms is represented by the names of skin diseases, as a result of which the structure and color of the skin changes. Anthrax “anthrax” — Greek: anthrax “coal”, which is interpreted as “skin anthrax” — a boil-like lesion of the skin, eventually forming a sore with a black coal center” (1, 32). Cyanosis “cyanosis” — a bluish-red color of the skin, discoloration of the skin and mucous membranes (1, 93) — from Greek kyaneos “dark blue” (1, 207). Xanthoma — a yellowish fibroma — Greek xanthos “yellow” (1, 102). Melaena “melena” — the passage of unformed black feces during bleeding in the esophagus, stomach, and upper intestines — Greek. melaina “black” (1, 115). Leucoderma — white spots on the skin — Greek leucos “white” and derma “skin” (13, 245). Erythema “erythema” — limited redness of the skin caused by dilation of the vessels of the dermis erythros “red” (13, 245). Cirrhosis “cirrhosis” — one of the symptoms is that the liver is red — Greek kirrhos yellow, red (1, 208). 2. Zoomorphic terms formed in the image of animals. The presence of zoomorphic terms in medical terminology allows us to talk about the conception of the human body as part of nature, when similarities with parts and organs of animals are identified. Pectus carinatum “chicken breast” — rachitic chest — from lat. pectus “chest” and carina “keel in birds” (5, 158). Leontiasis “Leontiaz” — Greek description of the face of a leper patient resembling a lion — Greek leon “lion” (1, 106). Scrofulosis ‘scrofula’ — tuberculosis of the cervical lymph nodes inflammation, the neck becomes thick and scaly, like a pig. Scrofa 'pig' (2, 909). Ichthyosis - abnormal keratinization of the skin, the skin takes on the appearance of scales - Greek ichthyos "fish" (1, 88). Cancer - cancer - Latin cancer - Greek karkinos "cancer". In ancient times it was associated with the similarity of the outline of a breast cancer tumor to a crab (13, 234). Elephantiasis - persistent growth of any part of the body - Greek. elephant (1, 214). Lupus - previously used to describe skin erosions resembling wolf fangs - Latin lupus "wolf" (1, 111). Sarcoma - from the Greek - a tumor that resembles raw fish flesh when cut, from the Greek - sarx “fish meat” (1, 169). Ranula ‘ranula’ — sublingual, developed from the ducts and lobes of the salivary gland, similar to the laryngeal bladder of a frog, diminutive — lat. rana “frog” (1, 163). Angina pectoris “angina pectoris” — angina pectoris, spastic phenomena from the heart vessels — lat. pectus “chest” and angere “suffocation” (1, 29). 3. Terms based on a specific action. Usually, terms in this category refer to mental disorders. Agonia ‘ agony ’ — from the Greek agony “struggle” — this is the terminal state of the body before the onset of death, which is associated with the activation of compensatory mechanisms aimed at combating the decline in the body’s vital forces (1, 23). Lethargia ‘ lethargy ’ — imaginary death — from the Greek letthe “forgetfulness” and aergia “inaction” (1, 106). Aura “aura” — a feeling, a premonition of an

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impending epileptic attack — Greek aura “light breeze, wind” (1, 38). Chorea “hope” — rapid, involuntary movements — Greek choreia “to dance, to dance” (1, 206). Schizophrenia “schizophrenia” — a mental illness characterized by a disorder of thought processes and emotional reactions — Greek schizo “separation” and pren “soul, mind” (1, 209). Tetanus “tetanus” — a bacterial acute infectious disease characterized by damage to the nervous system and manifested by tonic tension of the skeletal muscles and general convulsions; the patient’s body is tense, resembling a bowstring — Greek tetatanos “cramp, tension” and another Greek verb titanio “to draw from a bow, to aim” (13, 1009). Amphorophonia — above the caves the audible breathing noise resembles the sound produced by the rapid passage of air over an empty bottle — Greek amphora “vessel, jug” and phone “sound” (7, 28). Oedema “swelling” — from Greek oidao “swelling, swelling” (1, 210). Eczema — inflammation of the skin — Greek ekzeo “boil” (1, 210). 4. Mythological terms. Terminology clearly reflected the process of understanding the world through mythology. Mythology gave medicine the names of its gods and goddesses, heroes and demons. Hygiena — hygiene; derived from the name of the goddess of health Hygieia — Greek hygieinos “healthy, bringing health” (1, 60). Sirenomelia “sirenomelia” — a developmental anomaly in the form of fusion of the lower extremities; the limbs are so formed that they resemble the tail of a fish grows together and the child herself resembles another Greek mermaid or siren seirēn 'siren' and melos 'member' (13, 934). Hermaphroditos “hermaphrodite” — a person with the characteristics of both sexes; from the name of an ancient Greek mythical creature, the son of Hermes — from the Greek Hermes and Aphrodite, who had both male and female characteristics (1, 59). Mania — a strong addiction to something, an excessive degree of passion; from the name of the goddess of madness Mania — from the Greek mania “madness, madness” (1, 112). Caput Medusae “Medusa's head” — varicose veins of the anterior abdominal wall; Medusa Gorgon had curly snakes instead of hair on her head (1, 113). Thanato — a term element with the meaning “related to death”; from the name of the god of death Thanatos — from the Greek thanatos “death” (5, 202). Psychiatria — psychiatry; from the name of the goddess of the soul Psyche — from the Greek psyche “soul” (13, 831). Hypnosis — a temporary state characterized by a sharp focus of attention and hypersensitivity to suggestion; from the name of the god of sleep Hypnos — from the Greek hypnosis “sleep” (1, 67). Cyclopia — a congenital malformation resulting in a one-eyed, one-eyed fetus; from the mythical creature Cyclops, a giant with one round eye in the middle of his forehead “from the Greek Kyclops “round” and opsis “eye” (1, 207). Phobia — a term element with the meaning “fear, obsessive fear”; from the name of the god of fear Phobos — from the Greek phobos “fear” (1, 200). 5. A group of metaphorical terms based on similarity in external signs. In particular, this category refers to skin diseases. Carbunculus - acute purulent-necrotic inflammation of the skin and subcutaneous tissue around the hair follicles and sebaceous gland group; in the stage of purulent inflammation, a black zone of necrosis is formed in the center of the infiltrate, which is a diminutive from the Latin, carbo "coal" (1, 91). Hordeolum - "Barley on the eyelid" - acute purulent inflammation of the hair follicle of the eyelash or the sebaceous gland of Zeiss, located near the eyelash bulb, "barley" is a diminutive from the Latin "hordeum" (13, 479). Ascites "ascites" - accumulation of free fluid in the abdominal cavity - Greek ascos "fluid bag" (1, 37). Cysta "cyst" - pathological cavity in tissues or organs; from the Greek — resembling a bubble, kystis “bubble” (6, 211). Diphtheria — diphtheria; if diphtheria affects the oropharynx, then croup may develop — obstruction of the airways with diphtheria film and edema — from Greek diphtheria “skin, film, covered skin” (1, 79). Typhus “typhoid” — an acute cyclical anthroponotic infection; from another Greek, typhus “smoke, fog, clouding of consciousness” (13, 1014) accompanied by mental disorders against the background of high

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fever and intoxication. Tophus “tof” — the general name of pathological foci of compaction of subcutaneous tissue “from Latin tophus “porous stone” (1, 189). Tuberculosis — “tuberculosis” — with this disease in some organs, tuberculosis is formed, which is called “tuberculosis” from Latin tuberculum ‘tubercle’ (3, 781). Discussion Medical terminology is a macroterminal system or system of systems. This means that it consists of a number of separate independent subsystems, each of which serves a separate area of medical knowledge. Thus, each term is an element of a specific subsystem: anatomical, histological, embryological, therapeutic, immunological, biochemical, etc. Each subsystem reflects a specific scientific classification of concepts Foreign Languages in Uzbekistan, 2024, vol. 10, No. 1 (54), p. 117-128. The macroterminology system includes, along with pharmaceutical terminology, anatomical nomenclature and medical terminology occupies a leading position. Therefore, medical students begin their study of Latin medical terminology with these three main subsystems. In this article, we will focus on medical terminology, since they clearly demonstrate the speech difference in the use of Latin and Greek terms. Currently, terminology issues are of particular interest to domestic researchers. This is because the current stage of development of medical knowledge is characterized by strict scientific rigor in the selection and construction of terms. The issue of criteria for a scientific concept has been studied by linguists since the 1930s. In the 20th century, terminology was formed as a separate scientific knowledge. Many domestic scientists were engaged in research in the field of medical terminology, in particular, medical and anatomical terminology (10; 4; 8) etc.). Modern terminology is subject to strict syntactic, semantic and pragmatic requirements. Terminology is considered by modern researchers not only as a naturally historically formed entity, but also as a set of consciously regulated terms is studied. Let us list the main semantic criteria of the term defined by domestic scientists: specialization, consistency, definition, systematicity, unambiguity, accuracy, independence from context, stylistic neutrality, conditionality of use, invariance of meaning, absence of synonyms, etc. The syntactic criteria of the term are normativity (compliance with language norms), brevity and derivative ability. Newly created medical terms must meet the above criteria to the maximum extent in order to be adequate. Based on the literature studied, we can conclude that the following criteria have acquired particular importance for the term in the 20th century, and these are: definition of the concept of a special field of knowledge, accuracy, systematicity and precision. In connection with the emergence of new areas of medical knowledge, the need for new nominations has increased, and medical terminology is constantly being updated. In accordance with the criterion of terminological modernity, obsolete terms are replaced or new terms are introduced. It is obvious that ancient medical terminology did not meet these requirements partially answered. In the early stages of development, medical terminology was characterized by the criterion of esotericism (inability to use intentionally for people) more than the terminology of other sciences. In creating the esotericism of medical terms, their Greco-Latin “shell” played (and still plays) an important role, hiding the internal form of the word, understandable only to specialists. In ancient times, Greek remained the scientific language of medicine, since the leading Roman doctors were originally Greek and wrote their works in Greek (for example, Galen). However, in the Middle Ages, Greek was replaced by Latin as the language of science. The main part of anatomical terms is made up of Latin words. However, a number of Greek terms were left unchanged, for example, hepar - “liver”, thorax - “chest”, oesophagus - “esophagus”, ganglion - “nerve ganglion”, etc. Of course, Greek terms Latinized (due to this, the spelling of words is simplified). Several Latinized Greek terms are listed in two main parts of general medical terminology at once - both anatomical and clinical. Inflammation of the liver is called hepatitis, although this organ also has a Latin name - jecur, but the term

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jecorite does not exist, only hepatitis. There is also a long-standing medical term - cirrhosis of the liver (cirrhosis of the liver). You will not find a Latin equivalent of corrugatio jecoris in any source. At the same time, the term "cod liver" is used in pharmacy - jecur Aselli (7). Thus, in anatomy there are only words of Greek origin, which do not have Latin equivalents. It is easy to recognize signs of Greek origin in a Latin term: if the noun ends in -on, or if the Greek digraphs rh, θ, φ, χ are used in writing, or if y is used instead of io, then these are Greek. At the same time, strict adherence to spelling need. Even one letter can radically change the meaning. For example, the Greek word typhus means typhus, and typus means regular attacks of the disease. Another example of a change in meaning: the word lymph is one of the main body fluids, along with pure water, moisture, blood, but at the same time the noun lymphaticum means madness, as well as lymphadia, and the word lymph is crazy, obsessed. These examples show the difference in the meanings of seemingly almost identical words derived from the same root: lymphatic, a, um — lymphatic, but lymph, a, um — crazy. The difference is only in the suffix -ic, which in medical terminology means "relating to what is called the basis", and the suffix –at– means "consisting of something". Thus, literally, lymphaticus is related to lymph, and lymph is filled with lymph. During the study, 45 terms were identified, which, according to their specific characteristics, were divided into the five groups listed above divided. Analyzing each group of terms, we found that each group corresponds to a certain group of diseases. Thus, the group of terms based on skin color types is represented by the names of skin diseases. The group of zoomorphic terms mainly refers to serious diseases of internal organs and congenital diseases associated with the external features of a person. Terms based on a specific action usually refer to mental illnesses. The group of mythological terms is mainly found in medical psychology. The rapid development of modern medical terminology has led to an increase in the number of new terms. Scientific medical terminology is expanding due to the emergence of new formations, revision of the meanings of already existing stable combinations, and the use of terms in a metaphorical sense. Terminological metaphorization is the most effective way to enrich the scientific vocabulary. The productivity of metaphorical transformation in terminology, in our opinion, is explained by the desire to express thought in other understandable, vivid forms, and to find appropriate linguistic means.

Conclusion The metaphorical representation of the world and the use of Latin metaphors in medical terminology are part of linguistic culture and interpersonal communication in medical practice. Therefore, in the study of metaphors, it seems necessary to pay attention to their comprehensive analysis in the future. One of the most effective mechanisms for the formation of terminological units was and remains the metaphorical nomination, which arose in antiquity - the transfer of signs of the appearance of objects or their parts surrounding a person. The superiority of transfer by similarity of form in medical terminology can be explained mainly by the influence of factors of an extralinguistic nature, in particular, the ease of fixing a familiar object in visual memory and, therefore, the efficiency of term recognition.

References

1. Aleksandrovsky B. P., Sokolovsky V. G. Dictionary of clinical terms with translation and explanatory meaning. - Kyiv: Health, 1969. - 248 p.

2. Arnaudov G. Medical Terminology: In five languages: Latin, Russian, English, French, German / Translated from Bulgarian by prof. V.V. Zavyalova]. 4th Russian ed., corrected. Sofia: Medicine and Physical Education, 1979. XXIV. — 943 c/ — URL^

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http://elib.usma.ru/bitstream/usma/7399/1/USMU_Sbornik_statei_2022_1 93.pdf 3. Arkhipova I.S., Olekhnovich O.G. // Methodological and linguistic aspects of Greco-Latin medical terminology. Proceedings of the All-Russian scientific-educational-methodical conference. — St. Petersburg, 2016. — P. 27–31. (date of access 22.02.22) — URL: http://elib.usma.ru/bitstream/usma/7520/1/USMU_Sbornik_statei_2022_2 14.pdf 4. Gushchina L.N. From the history of English medical terms denoting tumors // Journal of Grodno State Medical University. — 2006. — No. 3(15). — P. 125–129.

5. Dakhunova F.K. Research of the specifics of the metaphorical picture of the world in medical terminology.// The world of science, culture, education. - 2022. - No. 3 (94). - P. 458–460.

6. Butler I. Kh. Latin-Russian dictionary. - Moscow, 1976. - 1096 p.

7. Ermicheva V.I. Latin terminology in medicine: reference and training manual. - Moscow: Astrel, AST, 2009. - 222 p.

8. Zaborovskaya O.S., Krinitsky D.Yu. Categorical bases of nomination in clinical psychiatric terminology // Journal of Grodno State University. - 2011. - No. 3 (35). - P. 84-86.

9. Kiseleva L.A. Terminology system of the field of medicine "Obstetrics" // Bulletin of Kalmyk University. - 2017. - No. 1 (33). - P. 76-81.

10. Likhovskikh K. A., Olekhnovich O. G. Latin terms of metaphorical origin in clinical terminology. - Ekaterinburg, 2022. - P. 1056-1062.

11. Mokienko V.M. Slavic phraseology. Modern Russian language: Lexicology. Phraseology. Lexicography: anthology. — St. Petersburg: St. Petersburg State University, 2002. — 205 p.