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WAYS OF ENTRY OF GREEK-LATIN TERM-ELEMENTS IN ENGLISH HISTOLOGICAL TERMINOLOGY

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ABSTRACT

Histological terms are the least studied and still insufficiently regulated area of the terminological lexicon of medical and biological sciences. This article highlights the specific aspects that determine the appearance and use of histological terms in English. In order to clarify the characteristics of the introduction of Greek-Latin term-elements into English histological terminology at the initial and modern stages, the principles of international term creation are discussed.

KEY WORDS: ***terminology, medicine, histology, antiquity, Greek-Latin, term- element, English language, acquisition.***

INTRODUCTION

Terminology as the basis of professional lexicon attracts the attention of many scientists from year to year. This is an indication of the importance of science in current society. With the development of sciences, the problem of regulating its terminology is becoming more relevant, especially in the medical-biological sciences, where several thousands of terms are used and characterized by complexity of understanding and versatility. Histological terms are the least studied and still insufficiently regulated area of medical-biological science terminologists. The relevance of research work on the histological terminology of the English language is very important not only for linguistic scientists, but also for medical workers.

LITERATURE REVIEW

In scientific researches, it has been given that the construction of a term based on Greek-Latin term-elements in new languages depends on at least two factors. For example, N.V.Vasilyeva says: "Firstly, in this case, the general predisposition of the content of each dictionary to foreign languages, which in turn is associated with the historical and cultural background of the language, and it determines the external aspect of analysis; secondly, the terminology of a particular scientific science is associated with the peculiarities of its formation, since the formation of each terminological system can be characterized by a different tendency and relationship to the vocabulary of a common language, and this represents its internal aspect".

According to the assertions of some researchers, ancient scientific texts cannot be approached with modern criteria, it is not necessary to look for a special nominative term fund that distinguishes them from words in general, which has the means of meaningfulness, relative stagnation, making a special word. Terminology of ancient texts, according to S.S.Averinsev: "It is *in statu nascendi*, i.e. "initial state terminology" where each word is pulled before the reader's eyes for terminological use of everyday life and still vibrates like a newly caught fish" [1, 41-81].

The processes of formation of medical terminology can be said to have been studied much more deeply. For example, M.N.Chernyavsky argues that the scientific revolution of the 17th century, characterized by the formation of new scientific disciplines and fundamental scientific directions and leading to the creation of many new terms, caused the rapid development of medical science, and that from the end of the Renaissance, the language of medicine gradually became more adapted to the needs of the development of vibrant national languages [7, 411-425].

RESEARCH METHODOLOGY

New age terminology inherits not the principle of converting concepts from ancient languages into terms, but the units that are currently needed to create new terms, and some term-system – defining-word-making models, and in this way new terms are still being created.

The "live Latin" of the Renaissance, which embodied humanistic traditions in the activities of the Latin language, was marked by the Cicero language and therefore did not include words from other languages. The medieval lot of Scholastic science, on the other hand, freely introduced and absorbed Greek elements. Some similarities are observed here, the process of making modern terms based on Greek-Latin term-elements. In either case, it is clear that artificial language materials that allow different language combinations to be made are referenced, but not desemanized, but carry a certain semantic load, since they are somehow related to live language. Modern terminology receives from ancient languages not only specific elements and ready-made models, but also certain freedom of combining elements when creating new words.

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ANALYSIS AND RESULTS

Below we will try to highlight specific aspects of histology that determine their appearance and application in English using the example of basic concepts and terms. At the same time, the main focus is on the initial and modern stage of the inclusion of Greek-Latin term-elements in English histological terminology. To clarify the specifics of this process, the principles of term creation in the sources of International term-elements are touched upon.

It is known that Latin prevailed until the 16th century, when it was considered the international written language of science. In the English scientific language, which is just being formed in the 16th century, a specific and contradictory situation arises. On the one hand, there was a great interest in the ancient scientific heritage, on the other - a sharp decline in the role of Latin and, as a privileged means of expressing the achievements of scientific thought, Latin began to lose its position. The process is also further complicated by the shift of old French to English influenced by the norman conquerors (11th-14th centuries).

The problem of the collision of the English language with Latin B.N.Yarseva comments: “In the 16th century, English was not in the place of Latin in some traditional areas... in the Renaissance, the volume of new ideas and concepts open to all areas of human knowledge, new horizons of science, demanded a new weapon of thinking that was not connected with traditions. The Latin language, legislated by centuries-old medieval rhetoric, could not meet the new requirements...” [8].

On the other hand, English of the time did not contain all the riches of methods of expressing scientific thought, as in Latin. The lexical composition of the English language had to expand so that it became a means of expressing scientific conceptual and logical systems. The need of the language of science for new lexemes was great, which could be satisfied at the expense of internal possibilities, that is, the emergence of new meanings of existing lexemes, or external, that is first of all, the assimilation of words from Latin and Greek. Assimilation from classical languages was considered by English scientists of the 16th century as an inevitable phenomenon in the process of forming a terminological dictionary of the national language.

Reasons for the origin of scientific English from Latin and Greek, according to T.Savory, first of all, when Latin was used as a living language for a long time after the fall of the Roman Empire, the second reason is due to the peculiarities of Latin and Greek. The Greek-language sources of Athenian authors were distinguished by their beauty and elegance, which made this language an unattainable means of expressing thought and the most sublime form of human speech.

Latin also has many other unique qualities. Cicero's eloquence, Livy's grandeur, Gorazy's poetic imagination possess the power and clarity inherent in perfect Latin. The short, succinct and sharpness of Latin sentences are qualities that are highly valued by all scientists in their scientific work.

T.Savory believes that English science can be divided into the following categories: 1) acquired; 2) intruded unchanged (imported); 3) discovered [6].

The author includes in the first category words from everyday speech, such as ***berry, current, salt***, and words with a special history. According to him, the word ***parasite*** entered the English language from Greek in the 16th century as an adjective sentence, and originally meant “one who eats next to”. It later lost its original original meaning and was used as an offensive word among the general public in the sense of “eating at someone else's expense”. In medical terminology, however, the word appeared almost two centuries later, in 1727, in the sense of “organism living at the expense of another”.

It can also be said that the ***corpuscle*** used in histological terminology is “small particle” or “small body” – in 1660, “particle (protoplasmic cell) of blood, lymph” - in 1741; from Greek *aither* “burn” – ***Ether*** “upper pure air” - in 1398, ether (chemical substance) – in 1757.

The second category is words that have entered unchanged from Latin and Greek. In this regard, G.Brandly, claims that the vocabulary content of the entire Latin language began to penetrate into English. Because Renaissance Scholars made extensive use of Latin dictionaries, and countless words were mastered directly. Greek words that entered unchanged did not form as many numbers as Latin words, while Greek words and elements entered English primarily through Latin.

The third category is explained by the fact that English scientists are words of their own creation using Greek and Latin. This was due to the rapid development of Science and the fact that new European languages were ahead of development. In English, such a wide flow of elements of classical languages was made on the basis of the previously entered assimilative words. The Greek and Latin words created in this way have entered the scientific texts of new languages.
To linguistically study the history of medical terms, it is necessary to refer to the large Oxford Dictionary of the English language. Because in it the meanings of each word in English are given by the period. From this method E.Andrews used medical-biological terminology in the study of the history of development [2].

The roots of the origin of English medical language go back to the languages of antiquity. These languages have had a great influence on medico-biological terminology for many centuries and continue to this day. Greek medicine was strongly influenced by the Egyptian, Phoenician and Cretan-Mycenaean cultures, which were at a higher stage of development than the medical knowledge of the Ellins. The use of Cretan words to this day can be traced back to it is possible to know through the terms ***porphira; elaia - olive, oil; toxon***, which are listed in the E.Andrews source.

The Greek medical language of the period of the physicians of Alexandria were Herophilus and Erazistratus (about 300-250 BC) is a norm of harmony and scientific accuracy, even from

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the point of view of modern science. Greek had a strong influence on the medical language of the Romans. Latin is a language A.C.Celsus, has become a classic of medical science, absorbing the wealth of Hippocrates, the language of the Alexandrian healers.

Medical English borrowed Greek elements from Latin. Latin and latinized Greek forms were easily assimilated into English, and their assimilation was often limited to the loss of suffixes. In fact, in English medical terminology, the amount of words in the original English language is very small, but the Greek and Latin words of appropriation are so adapted to the English language that they are perceived as if they were the original English words.

E.Andrews suggests that English medical hellenisms can be divided into the following groups: 1) unaltered Greek words, 2) Greek words of latinized form, 3) Greek words without suffixes.

The first group contains words that do not retain their original meaning. The English medical language has acquired only the specific meaning of these words, and in this way has achieved its own linguistic wealth, adding to the English language what it lacks, that is, a special identity. Examples of this include ***nucleus, nucleolonema, endocytosis, cytoskeleton, apoptosis, endomitosis, meiosis, parenchyma, aplasia, hyperplasia, hypoplasia, metaplasia, hypertrophia, hypotrophia***.

The second group is Greek words of latinized form (Greek suffixes are replaced by Latin suffixes). For example, ***myocardium – myocardio*** (Gr.), ***periosteum – periosteon*** (Gr.), ***hypochondrium – hypochondrion*** (Gr.) and others.

The third group is Greek words that have lost (or are unreadable-e) suffixes. From histological terms to this group: ***cytoplasma*** (Gr.) - ***cytoplasm*** (Eng.), ***chromatinum*** (Gr.) - ***chromatin*** (Eng.), ***podosoma*** (Gr.) - ***podosome*** (Eng.), ***axonema*** (Gr.)- ***axoneme*** (Eng.) can be cited.

It is noteworthy that when complex concepts had to be named, Greek had more advantages over Latin. This is evidenced by the dominance of Greek composites in English medical, since in Latin, in such cases, the assimilation of the Greek language prevailed. Many Greek composites do not have equivalents in Latin.

It can be said that the influence of the Latin language was strengthened by the time when medicine began to be studied in modern languages, that is, about two centuries ago. For example, in the early days of the creation of the «microscope», it was called differently in the sense of "sight tube". In 1624 G.Galileo used a device of his own design, the "okkiolino" (ital. Occhiolino – a little eye). A year later, in 1625, the German botanist I.Faber introduced the term "microscope" into consumption based on the elements of the ancient Greek term-elements, and this form became widely popular.

According to E.Andrews, this was the case with almost every neologism in medical terminology. The author explains this by the fact that over the past two centuries almost every reader has been familiar with the ancient heritage of Cicero, Vergilius, Caesar, Homer, Xenophon, not even a doctor, not looking for a name from the works of Celsus, Hippocrates or Galen. Accordingly, if a doctor turns to a dictionary in order to create a new term, then it can be a dictionary of classical Latin, the technique of which is not at all reflected in the medical language.

Looking at the history of histology, histology was created long before a microscope was invented yet. The earliest definitions of tissue are found in the work of Aristotle, Galen, Ibn Sina, Vesalius. In 1665 R.Guk introduces the concept of a cell and observes the cellular structure of certain tissues under a microscope.

It is known that bilingualism still existed in England at that time, with major scholars publishing their works in both English and Latin. The English physician William Garvey, founder of modern physiology and embryology, also published his famous work "Exercitatio anatomica de motu cordis et sanguinis in animalibus" (1628) in Latin.
The idea of the existence of invisible living things in nature arose among many scientists (Hippocrates –5th century B.C., J.Fracastro – 16th century, A.Kircher – 17th century). But there was no information to support this. A.Levenguk observes microbes under a microscope and presents an image of bacteria for the first time in 1683.

It is assumed that the classification and nomenclature of bacteria appeared two centuries before the emergence of the concept of the existence of human bacteria. These two centuries distinguishe the period of A.Levenguk discovery and L.Pasteur, who made the greatest discoveries in microbiology, when bacteria began to be studied by as well as his contemporaries. Levenguk described and based on all the morphological types known to science today, namely coccuses, bacteria, spiral forms. He created the first classification of microorganisms.

The historical development of histology in general is studied in three periods: 1) the pre-microscope period; 2) the microscope period; 3) the modern period.

1. **The period prior to the creation of the microscope** is associated with the evolution of perceptions of human body structure, and covers the period from the 5th century BC to 1665.

2. **The microscope period** is from 1665, when the English physicist R.Guk begins with creating a microscope. The discoverer conducts biological research and uses the term "cell" (cellule) for the first time. And to the widespread use of this term is N.Gruning's source on plants [4] was the reason. Currently, there are more than 30 medical terms in English made from the this word, which are: ***host cell, killer cell, helper cell, memory cell, adherent cell, precursor/progenitor cell, companion cell, mucous cell, basket cell, clear cell, fat cell, ghost cell, pricle cell, taste cell, wandering cell,*** etc.

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We try to interpret "***stem cell***" etymologically as *root cell*. Since stem cells are currently very actively used in cosmetology and plastic medicine, the term has become widely popular. According to the sources of the English language, the emergence of this term cited in M.R.Santos X.Villenbring's researches. They have expressed their views on the historical aspects of the emergence of the term «stem cell». The term "stem cell" has been used in the scientific literature since 1868 by the famous German naturalist and philosopher E.Haeckel. E.Haeckel attempts to create a phylogenetic tree-based faunal system that describes sequential descent to common ancestors in the process of animal evolution. In this context, E.Haeckel used "Stammzelle" (Germ. - stem cell) used the term to describe a unicellular organism, which he assumed all multicellular organisms evolved from [5]. E.Haeckel, in the 3rd edition of "Anthropogeny", proposes to shift some categories from evolutionism (filogenesis) to embryology (ontogenesis), as well as refer to a fertilized egg as a "stem cell". Thus, E.Haeckel used the term "stem cell" in two senses: to designate the unicellular ancestor of all multicellular organisms and to designate the fertilized egg that causes all cells of the multicellular organism.

3. The beginning of the **modern era** in histology dates back to the first period of application of electron microscopes, 1950. In this century, further improvement of the methodology continued, which led to the formation of histology in its current form. Modern histology is closely related to cytology, embryology and other sciences. Histology has developed issues such as the patterns and differentiation of the development of cells and tissues, adaptation at the cellular and tissue level, problems of tissue and organ regeneration. The achievements of pathological histology are widely used in medicine, which makes it possible to understand the mechanism of development of diseases and indicate methods of their treatment.

CONCLUSION

It seems that the roots of the origin of the English medical language go back to the languages of antiquity as Greek and Latin. These languages have had a great influence on medico-biological terminology for many centuries and continue to this day. To English medical terminology, they appear to have been largely unchanged, either in their original or latinized form of Greek words. Terms created by English scholars using Greek and Latin also make up a large number. In them, changes are observed in their appendages, while the Greek-Latin basis is preserved.

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