Linguistic aspects of eponymic professional endocrinologic terminology

Abstract.
Background. Special linguistic researches of terminological units of different branches of medicine allow analyzing in details the ways of creating the systems of clinical terminology from different aspects: historical, scientific, cultural, linguistic and semantic. There is a wide area of terminology related to the clinical and experimental endocrinology within general medical terminological system. The purpose of the study: to demonstrate the structure of endocrine medical terms — eponyms through the prism of systematization of methodological researches on eponymic vocabulary. Materials and methods. The actual material received as a result of a total choice of eponyms (there were 296 terms) from the “Reference dictionary for endocrinologist”, which was composed by the scientists of V. Danilevsky Institute of Endocrine Pathology Problems and Kharkiv Medical Academy of Postgraduate education — A.V. Kozakov, N.A. Kravchun, I.M. Ilyina, M.I. Zubko, O.A. Goncharova, I.V. Cherniavska has 10,000 endocrine terms, the authors successfully streamlined medical terms of the clinical and experimental endocrinology into the vocabulary. The method of total choice of terms from professional literature, the descriptive method and distributive method were used in the study that allowed distinguishing lexical and semantic features of eponymic terms in the branch of endocrinology. Results. The obtained results point out to the modernity of studies in the field of clinical and experimental endocrinology, which is due to the fact that this is the oldest terminology, by the example of which it is possible to trace the ways of formation, development and improvement of terms, the realization of semantic processes, certain trends, ways and means of word formation. Conclusions. The results of the research on the above mentioned sublanguage of clinical medicine at the level of linguistic observations of the functioning in dictionaries and scientific works will not only highlight the linguistic aspects of professional medical terms, but also will help the linguists to master the etymology of professional terms.

Keywords: linguistics; endocrinologic term; clinical terminology; onomastics; eponymic term

Introduction
Many modern onomastic researches display the opinion about peculiarities of eponymic vocabulary, which can be observed not only in the process of choosing the material for analyzing, but in phonetic, orthographic, morphologic translation as well. Thus, taking into account the specificity of the subject and the aims of Onomastics (Onomatolody) as a branch of linguistics, as well as of all its aspects (Eponyms, Toponomastics, Anthroponomastics, Hydronymics etc.), the topicality of the study is the determination of methodological features of eponymic onomatology. From this view, medical terms — phrases that include proper names in the branch of clinical and experimental endocrinology were chosen for the object of our research. Endocrinology is considered to be one of the young branches of medicine, because as an independent branch, it began to exist in the late nineteenth century.

The accumulation of experience of numerous millennia as well as attracting animals’ glands for the medical purposes influenced the formation of scientific endocrinology. The usage of animals’ organs was associated with the cult of animals that was widely spread in primitive society. According to the cult, the animals were considered to be the patrons and guardians of people from different diseases. Thus, treatment of animals’ organs undoubtedly appeared at the time of antiquity. In the slave period the idea of endocrine organs and their treatment was formed. Such diseases as dwarfism, gigantism, hermaphroditism and others were associated with the work of endocrine system and they were known during that period. The first scientific works dedicated to the endocrine glands...
appeared at that time: in India Aretha Kappadokysky (I–II cent. B.C.) devoted his research work to the conditions of diabetic patients; in China, in the work “Description of water and dry land” (770–220 years B.C.), the term goiter appeared for the first time. The disease was described as a result of drinking contaminated water, as well as the result of heavy psychoemotional experiences. It is interesting to know that, at that time, the main medicine for such disease was seaweed (algae). In India (2000 B.C.) the disease got the name goiter (“halahanda”), the description of which was found in Indian religious books. In Ebers Papyrus (XVI century B.C.) the instructions for the surgical treatment of goiter and the usage of medical salts of the Nile delta were given for the first time. Hippocrates (460–377 years B.C.) considered that poor quality drinking water was the cause of goiter. Such scientists as Vitruvius (in the first century B.C.), Pliny, Juvenal (in the I cent. A.D.); Ulpinan (in the II cent. B.C.); Celsius (25 B.C. — 45 A.D.), Galen (130–210 B.C.), dedicated their scientific works to the problems of endocrine glands and they recommended surgery for the treatment of goiter by burning skin and squeezing the content of cysts. Byzantine doctors Ae- tius Amidenus (VI cent. A.D.) and Paul Ehinskyy (in the XVII cent. A.D.) recommended sea water for the treatment of goiter. In the era of formation of capitalist relations in Western Europe (in the XVI–XVII cent.) during the growth and development of technology and culture huge changes in science were observed. Medicine was enriched with new scientific knowledge about the anatomy of the endocrine glands (the works of Vesalius, Kasseriya, Wharton, Yevstahiya, Bartolini et al.), that allowed scientists to get closer to the study of the functions of the glands and their treatment. At this time the world saw such scientific works as: the works of Swiss physician Paracelsus (1493–1541), where the scientist made the first discovery in diagnosing of goiter, the causes of its appearance and the links with neurology diseases; the medical research made by British doctor Willis (1622–1678), where the impact of the goiter on the body was analyzed. In the XVIII–XIX centuries, when there a brisk and rapid development of science and technology was observed, numerous discoveries appeared in various branches of medicine. Endocrinology did not stand aside from the development of endocrine diseases. Exactly this historical period of time was considered to be the time of scientific establishment of clinical and experimental endocrinology. Scientists proved that endocrinologic problems had relationship with almost all the branches of medicine, but most of all they were related with Cardiology, Oncology, Ophthalmology, Gastroenterology, Nephrology, Urology, Neurology, and Gynecology [10, p. 8]; [2, p. 3]. Thus, every historical period of development of endocrinology is accompanied by a large number of prominent surnames of doctors who devoted their research to the development of the above mentioned medicine. The historical background references in this direction help in onomatological researches in depicting ep- onymous endocrine terms. The choice of methods and techniques in eponymous onomastics research depends on the object and tasks set by scientists at work.

The purpose of the study is to show the methodological research of eponymic vocabulary and to consider the particular structure of medical terms — eponyms through the prism of systematization.

Materials and methods

However, these two indicators are organically connected and separate them is impossible. Famous linguist O.V. Superanska notes that “it is difficult to separate the method and the reception and identify the hierarchy of methods” [12, p. 193]. In medical terminology along with the common names (from Latin: nomina aprelativa) are widely used proper names (from Latin: nomina propria, English proper name), Onomatology or (Onomastics), (from Greek Όνομαστική — “art of giving names”) — is a linguistic science which deals with a comprehensive study of proper vocabulary [8, p. 16].

From the point of our research, onyms are subdivided into: 1) theoretical onomatology (which establishes the general laws of development and functioning of proper names); 2) descriptive onomatology (which depicts characteristic features of proper names that is carried out according regional or areal method, such following features are analyzed in a particular region or spread throughout all over the territory); 3) applied onomatology (that determines the form, accent, pronunciation, transcription, spelling, conjugation of eponyms, different models of their formation such as patronymic names, names of residents in the community, toponyms, etc. [14, p. 11]. Each part of onomatology has its own principles of forming terms in different branches of science. Proper names in medical terminology are related to linguistic term eponymy (from Greek Επόνυμος — “the one that gives the name, a person on behalf of whom the name originates or takes place”) [6, 13]. Eponymics considered to be a linguistic discipline, because linguistics is “the key to consideration and understanding of thenominal information” [3, p. 5]. In general, in linguistics metonymy hyphenation is the mechanism of eponymic terms formation [9, p. 80–83]. Russian scholar — lexicographer L.V. Xiltouched these questions while analyzing operative — surgical terminology [4, p. 11–12]. Ukrainian linguist P.I. Stetsyuk [11] paid much attention to eponymic terms in cardiologic terminology. M.V. Dmitruk [1], while analyzing veterinary terminology, paid much attention to author’s copyright names. Scientists observe interesting researches on individual subsystems of medical terminology, such as: Forensic medical termination was analyzed by T. Lepekha, Dermatologic terminology was analyzed by O. Petrova; terms of Radiological medicine were analyzed by I. Korneyko and others. But all the researchers came to a conclusion that the usage of eponyms in the scientific literature makes the text more concise and vivid.

The study of eponyms by modern, “especially young scientists, allows to learn the history of the science deeper, to understand the roots on which modern morphological sciences are based” [9, p. 5]. Experienced doctors — experts, scientists in the field of morphology composerference — dictionaries, where terms — e-
nymns are used. It is clear that such dictionaries are of great need for medical students, because they are lack in Ukraine. It should be noted that nowadays there is no comprehensive lexical research devoted to etymological analysis of endocrinological medico-clinical terminology. However, a complete list of clinical and experimental terms are presented in the “Glossary-Dictionary for endocrinologist” (“Reference dictionary for endocrinologist”), which was composed by the scientists of Institute of Endocrine Pathology Problems, named after V. Danilevsky and Kharkiv Medical Academy of Postgraduate education by A.V. Kazakov, N.A. Kravchun, I.M. Ilyina, M.I. Zubko, O.A. Gongcharova, I.V. Cherniavska has 10,000 endocrine terms, where the authors successfully streamlined medical terms of clinical and experimental endocrinology into the vocabulary. The authors successfully streamlined medical terms of clinical and experimental endocrinology into the vocabulary.

Results

So, the actual material that we have received as a result of a total choice of terms — eponyms (there were 296 terms) of the above “Reference dictionary for endocrinologist”, leads to the conclusion that these terminological units may be found in different semantic constructions. Regarding their productivity they are divided into: the names of syndromes make up 69%; the names of symptoms make up 28%. According to their lexical structures the most spread are two component terms, such as: (Aaze syndrome, Berry symptom, Wolf’s Straits) — make up 67% of analyzed vocabulary; three component terms (Debra Marie syndrome, Huns — Sallus symptom, a symptom of Charcot — Marie) — make up 22%; the less spread are four component terms, for example (Van Wick — Ross — Henesa syndrome, Pehkrentsa — Morhanyi — Stewart — Morel syndrome, Pehkrentsa — Morhanyi — Stewart — Morel syndrome, Pehkrentsa — Morhanyi — Stewart — Morel syndrome) — make up 3% of analyzed terms. While speaking about syntactic models that are used as terms — eponyms in medical terminology, in most cases, there are two versions of them: substantive and attributive.

The results of the total choice of endocrinologic terms — eponyms allow us to conclude that the most spread model of formation of terms is substantive model:

*thenoun (in Genitive case.), expressed by proprial term +
thenoun (in Nominative case), expressed by an appellative term.*

So, let us focus more on examples of terminological verbalization in terminological system of Embryology based on systematically — semasiological, onomatological, functional and communicative analysis.

The most spread area of terms — eponyms is in the names of syndromes and symptoms, especially when they have simple, binomial construction: (propriativ + appellative).

Let us consider the etymology of some of them: *Addison’s syndrome* is a chronic adrenal insufficiency, the clinical name is “hypocortisolism”. This pathological condition was first described by British physician Thomas Addison (1855); Burnett’s syndrome is another name of “milk-alkaline syndrome”. For the first time this term was described by an American doctor S.N. Burnett (1901–1967); Wolfram syndrome is another name of synonymous DIDMOAD syndrome: the abbreviation is composed of the first letters of the main manifestations of the syndrome (Diabetes, Insipidus, Diabetes — Mellius, Optic atrophy, Deafness). This syndrome was described for the first time by an American doctor D.J. Wolfram; Kylin syndrome is another name for “anorexia nervosa” — a disease that relates to progressive loss of body weight, which leads to dysfunction of the endocrine system. The name comes from the name of Swedish scientist Eskil Kylin (1889—1975); Conn’s syndrome or another name is “syndrome of primary aldosteronism” or (adenoma of renal cortex). For the first time this syndrome was described by American endocrinologist Jerome W. Conn (1907—1994); Leschke syndrome is another name for “dystrophy”, the inherited genetic endocrine disease. The name originates from the name of German General practitioner E.F.W. Leschke (1887—1933), who first discovered this disease; Lundbaek syndrome is another name for “diabetic angiopathy”, the name comes from the name of a Danish doctor Knud Lundbaek (1912); Melihov symptom is a specific view of the patient, which is observed in goiter, due to contraction of facial muscles. This condition was described by doctor P.G. Melikhov (1941), who dealt with problems of hyperthyroidism and described 75 symptoms of the disease; Raynaud’s symptom is a dermatologic disease of the upper extremities with damage of small arteries and arterioles that is provoked by endocrinological risk factor (disturbance in the work of thyroid gland). For the first time the disease was described in 1862 by French physician Maurice Raynaud (Maurice A.G. Raynaud) (1834—1881); Hashimoto’s disease is the other name of “goiter Hashimoto”, inflammation of the thyroid gland. The disease was described 100 years ago, by Japanese scientist Hashimoto etc. Let us consider the etymology of endocrine eponymic terms that consist of three of four terms in their structure: Althauzen — Sorkyn syndrome (Althauzen method) — A.J Althauzen and E.M. Sorkyn (1933) studied the early manifestations of the syndrome pre coma, another name for the disease is “hematorenal syndrom”; Wohllwill — Andrade syndrome — for the first time this endocrinological syndrome was described by German neurologist Joachim Friedrich Wohllwill (1881—1958) in 1942. A detailed clinical description and analysis of etiology of the disease was done in 1952 by Portuguese neurologist Mario de Andrade Root (1906—2005); Achard — Thiers syndrome — the synonym of the disease is “bearded woman syndrome”, which is associated with the disorders of the thyroid gland in women. In the name of the disease there are the names of two doctors, who described this syndrome: French physician E.Ch. Achard (1860—1944) and French neurologist J. Thiers (1885); Kearns — Sayre syndrome is a synonym for “pigment retinitis”, “complete heart block”, thus there is a combination of symptoms
of the nervous and endocrine systems. The clinical picture of the disease was examined and described in 1958 by English physician Thomas P. Kearns and George Pomeroy Sayre; Martin — Albright syndrome is a synonym for “pseudohypothyroid syndrome”, a disease associated with disposing of tissue by thyroid hormones. In the name of the disease we can find the names of two doctors: Swiss physician A. Martin and American doctor F. Albright (1900); Ghadimi — Partington — Hunter syndrome is another name for “Histudunemia”, in the name of the disease there are the names of doctors who first described the clinic of the disease: American pediatrician Hossein Ghadimi (1922), Canadian pediatrician Michael W. Partington (1926) and Canadian doctor Andrew Tate Hunter (1927); De Toni — Fanconi — Debre syndrome is a genetic disease, which is associated with enzyme deficiency of proximal tubules of the kidneys. The name of the disease originates from the name of Italian pediatrician G. de Toni (1895), French pediatrician A.R. Debre (1882) and Swiss pediatrician G. Fanconi (1892); Moragni — Stewart — Morel syndrome is another name for “frontal hyperostosis”, for the first time the disease was described by Italian physician and anatomist G.V. Morgagni (1682–1771), English neurologist R.M. Stewart (XX cent.), Swiss psychiatrist F. Morel (1888–1957); Lynch — Kaplan — Henn — Krush syndrome is a complex hereditary abnormalities, diabetes mellitus, hyperlipidemia, hypogonadism and others. In the name of the disease we can find the names of the doctors who described and analyzed the aforementioned syndrome, an American physician and geneticist Henry T. Lynch (1928), American geneticist and psychiatrist Arnold Raymond Kaplan (1926), American therapist Mary Josephine Henn (1919) and American biologist Anne J. Krush; Pehkrants — Babinsky — Fröhlich syndrome is a neuroendocrine syndrome, another name is “adiposogenital dystrophy” which is characterized by obesity. The name that came to us in this form was given by a famous neurosurgeon Harvey Williams Cushing (Harvey Williams Cushing, 1869–1939), who is considered to be the father of modern neurosurgery of the brain. He dedicated the name of the disease to well known experts: Russian neurosurgeon Pehkrants, who studied this symptom in 1899, doctor-neurologist Joseph Babinsky (the research on the following topic was done in 1900) and the Austrian neurologist Alfred Fröhlich (the research was done in 1901) [5].

Having analyzed the following material, we came to the conclusion that the main notional meaning in eponymic medical terms belongs to common noun (appellative name), but it is a proper name (eponym) that supplements the medical term for some biographical information, the knowledge of which makes it possible to reveal the etymology of complex medical terms in detail.

However, it should be noted that in the function of proprial name may be not only the surname of the scientist, but also a name of aliterary character. For example, in Endocrinology, there is so called Pickwick syndrome, the origin of which is rather interesting, because it is based on one of the characters of the novel “The Posthumous Papers of the Pickwick Club” written by Charles Dickens in 1837. This literary character was overweight and had all the signs of endocrine disease as “hypersomnia”. The hero of the novel remained in medicine as a classic example of Pickwick syndrome. The syndrome was analyzed and described for the first time by prominent Canadian physician William Osler (1849–1919) in 1918 [5]. There are two opposite postpositions as for the usage of eponymic formations in medical terminology in different medical branches.

Discussion

Some scientists support the idea that it is better to avoid the usage of terms — eponyms as proper names, because they do not bring any practical information, as they were created only to immortalize the names, surnames of the researchers that were involved into the nomination of terms. And that is why it is advisable to replace eponymic terms into qualification ones that directly reflect the essence of the term.

To the exceptions belong the names that were firmly established for a long time in the medical terminology and from which the derived words were originated from. In such cases eponymic terms remain as equally synonymic to qualification ones.

Thus, in our research we came across with many names, where the phenomenon of synonymy, even on proprial level was considered. For example:

Bazedov disease is characterized by exophthalmia, goiter and tachycardia. As far as the etymology of the term is concerned, there is the evidence that in 1840 German physician Carl Bazedov in “Exophthalmus due to hypertrophy of tissue cells in the eye sockets” first gave a classic description of the disease, which he called “exophthalmic cachexy”, and in most countries since that time the disease is called Bazedov’s disease. However, in the UK this disease is called Graves’ disease, in Italy — Flayani disease (the names of doctors who were involved in this issue) [5, p. 16]. Grove syndrome was described by Doctor Al Jeremy Grove and his colleagues in 1978. However, there are other names of this endocrine disease, achalasia syndrome, addisonism — alacrima syndrome or triple AAA.

In the name of the disease is seen the term “addisonism” which has eponymic etymology and originates from the name of the famous English physician Thomas Addison (Thomas Addison) (1793–1860), who is considered to be the father of modern endocrinology [5]. Another scientists’ opinion is that the usage of eponyms and the study of medical terms — eponyms by specialists will facilitate a deeper understanding of the evolution of clinical thinking, diagnosis, history of medicine, raises the intellectual level of the medical men, because the part of human history and culture is concentrated in them.

As G.N. Toporov in the preface to his dictionary of eponymic terms of clinical anatomy writes: “...The usage of anatomical terms, which include the names or the names of the researchers, who first described the anatomical formation, promote better orientation in the topographic anatomical location of organ or its planes... it is necessary for work with scientific literature, where the terms are indicated eponymically, that is, without a detailed explanation of meaning” [13, p. 3].
Conclusions

Compound eponymous medical term of any character demand sex act formulations and accuracy.

Having analyzed the research database of endocrine terms, it was certified a close relationship of eponymics with other branches of linguistics such as:

— Lexicology, where reveals the fact that onyms are lexical units and they obey to the laws of their study;
— derivatology (creation of proper names through available ways and means of the language);
— morphology (common features of inflection in proprial and appellative units);
— syntax (many nominations are of a syntactic structures);
— orthoepy and spelling (study features of pronunciation and spelling of onyms);
— stylistics (analysis of the use of proper names in different styles of text);
— lexicography (rules of completing onomastic dictionaries);
— dialectology (usage of local forms of names);
— as well as bibliography and history of medicine and so on.

The proposed study has practical guidance and theoretical studies, because there is a relationship with important scientific tasks today — the introduction of an official national terminology for general practitioners, scientists of various specializations, in the learning process for the preparation of competent specialists in different morphological disciplines.

Thus, our study shows that the usage of common onomastic principles, namely etymological, word — formative, lexical — semantic formation allow to disclose the nature of the nominating of complex medical terms, identify cross-language communication, and point out the historical and anthroponimical character naming terminological units containing their names to maximum.

Despite of significant progress in solving this problematic issue, its solution still requires considerable scientific research of theoretical and practical study of the language material based on medical terms within the eponymic area.

Conflict of interests. Authors declare the absence of conflict of interests in the preparation of the article.

References


Received 20.03.2017
Лингвистичні аспекти епінімічної професійної ендокринологічної термінології

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Лінгвистичні аспекти епінімічної професійної ендокринологічної термінології

Резюме. Актуальність. Специфічні лінгвистичні ісследования термінологічних едінців різних медичних спеціалізацій дають детально проаналізувати піти формування системи лінгвістичної термінології з урахуванням різних аспектів: історичних, наукових, культурологічних і лінгвосемантичних. В системі об'єднання лінгвістичної термінології достатньо представлено галузевий елемент термінів, з якого можна прослідкувати розвиток, розвиток та усвідомлення термінів, реалізацію лексемних процесів, певні тенденції, способи і методи словотворення, а також функціонування цих методів саме в галузі медицини.

Мета. Пригнано резерву термінів з проаналізувати систематизації лінгвістичних ісследовань термінологічних едінців різних медичних спеціалізацій, з метою аналізу піт формування системи лінгвістичної термінології з урахуванням різних аспектів: історичних, наукових, культурологічних і лінгвосемантичних. В системі об'єднання лінгвістичної термінології достатньо представлено галузевий елемент термінів, з якого можна прослідкувати розвиток, розвиток та усвідомлення термінів, реалізацію лексемних процесів, певні тенденції, способи і методи словотворення, а також функціонування цих методів саме в галузі медицини.

Матеріали і методи. Методом тотальної вибірки для проведення лінгвістичних ісследовань нами було проаналізовано 296 вербальних едінців з «Словаря-справочника эндокринолога», складеного сотрудніками ГУ «Інститут проблем ендокринной патологии им. В.Я. Данилевского НАМН України» і Харківської медичній академії после-дипломного освіту А.В. Козаковим, Н.А. Кравчун, Н.М. Ильной, М.И. Зубко, О.А. Гончарові, І.В. Чернівської, який включає 10 000 ендокринологічних термінів. В процесі ісследованияї застосовувалися: метод сплошної вибірки термінів з проаналізувати систематизації лінгвістичних ісследовань термінологічних едінців різних медичних спеціалізацій, з метою аналізу піт формування системи лінгвістичної термінології з урахуванням різних аспектів: історичних, наукових, культурологічних і лінгвосемантичних. В системі об'єднання лінгвістичної термінології достатньо представлено галузевий елемент термінів, з якого можна прослідкувати розвиток, розвиток та усвідомлення термінів, реалізацію лексемних процесів, певні тенденції, способи і методи словотворення, а також функціонування цих методів саме в галузі медицини.

Результати. Отримані результати вказують на сучасність досліджень у галузі ендокринології, зумовлених тим, що це найдавніша термінологія, на прикладі якої можна прослідкувати піти становлення, розвитку та усвідомлення термінів, реалізацію лексемних процесів, певні тенденції, способи і методи словотворення, а також функціонування цих методів саме в галузі медицини.

Висновки. Отримані результати вказують на сучасність досліджень у галузі ендокринології, зумовлених тим, що це найдавніша термінологія, на прикладі якої можна прослідкувати піти становлення, розвитку та усвідомлення термінів, реалізацію лексемних процесів, певні тенденції, способи і методи словотворення, а також функціонування цих методів саме в галузі медицини.

Ключові слова: лінгвістика; эндокринологический термин; клиническая терминология; ономастика; эпінімічний термин