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THE PLACE AND ROLE OF TERMS-EPONYMS IN MEDICAL TERMINOLOGY OF SURGERY

Summary. The article deals with the origin of surgery as a science, the development of surgical medical terminology. The place and role of proper names as well as the usage of terms-eponyms in surgery is determined. A detailed classification of terms-eponyms is carried out.

Key words: Surgery, eponyms, eponymy, surgical terminology, syndrome, symptom.

“The doctor has three instruments in his work:
A knife, a plant and a word:
Take them and work”
Avicenna (Ali Ibn Sina, “Canon of Medicine”)
[1, p. 76–79]

Introduction. Intensive development of language terminology used in different specialties, new subject areas leads to increasing the role of terminology as means of obtaining and organizing scientific knowledge.

In linguistics, there is a special unit that deals with the study and usage of proper names and that is called onomastics. Onomastics, (from Greek ὀνομαστική “art of giving names”) – is a linguistic science which deals with a comprehensive study of proper vocabulary [2, p. 16]. Onomastics studies the history and laws of occurrence of different kinds of onyms, their development and function, changes in the structure of proper names in language and speech, in literature and dialectal areas.

The main parts of modern Onomastics are: anthroponomastics or the study of proper names (from Greek anthropos – “person” and onyma – “name, title”), toponymy or toponomastics, the study of place names (from Greek topos – “place” and onyma – “name, title”) and kosmonomastics or the study of the universe (from Gr. kosmos – the universe and onyma – “name, title”) which in turn are divided into subunits and subsections [3]. Each unit of Onomastics uses its own rules of construction terms that belong to different branches of science.

So, what is eponym? First of all, the term itself is of Greek origin and as it is mentioned in Encyclopedia and Dictionary of Medicine, *eponym* is the name of a disease, structure, operation, or procedure, usually derived from the name of the person who discovered or described it first [4].

The aim of the research was to make the analyses of the usage of terms-eponyms in the branch of surgery, analyze their place and role in general medical terminology.

The problem statement was:

- to find the terms-eponyms that include the names of the doctors or scientists, who were the first to discover and analyze them;
- to systematize the terms in the groups;
- through the prism of historical development of medical terminology analyze the formation of terms-eponyms in the branch of surgery.

Analysis of recent research and publications. The objects of eponymic researches were almost all national languages of our country and many languages from Western Europe. Terms-eponyms were analyzed by M.L. Osadchyk (English terminology) A.V. Varnavska (Spanish terminology), H.D. Benkenforf (German terminology). Ukrainian terms-eponyms were analyzed by such linguists as M.V. Dmitruk (Veterinary terminology), L.D. Malevich (Hydro-ameliorative terminology), S.V. Ovseychuk (Environmental terminology), M. Dziuba (Ukrainian scientific terminology).

Medicine does not stand apart in the terminological process of the language. Medical terms were analyzed by G.I. Bezhenar (French medical terms), Y.V. Wit (Ophthalmic terminology), N.D. Kondratiev (Russian medical terms, translations), I.M. Hnatyshena (modern Ukrainian medical terms, eponyms), R.I. Stetsyuk (Cardiac terminology), N.V. Misnyk (Clinical medical terms), T.B. Lepekha (Forensic terminology) and others [5, c. 55–63].

Presentation of basic material of the research. In general, eponyms in medical terminology may be divided into such following groups:

A) *Mythological terms:* ex. *Medea complex*. The complex is characterized by the desire of the mother to kill her own children in order to take revenge on her husband. Medea, according to the ancient Greek mythology was the princess of Colchis, who helped Jason and the Argonauts to master the Golden Fleece. Fearing revenge on her father, she fled with Jason to Greece, but Jason deceived her and married another woman and limited to poisoning the opponent, Medea also killed her children from Jason.

B) *Terms with the names of literary characters:* ex. *Don Quixoticism*. The term is used to describe the behavior of patients resembling the lifestyle of the hero of the novel of the same name by M. Cervantes Don Quixote, who fought against non-existent enemies, defended non-existent “victims”, etc.

C) *Terms with the names of the patients:* ex. *Musset symptom* means a sign of aortic valve failure that was named in honor of the name of a sick French poet of the 19th century A. Musset.

D) *Terms with the names of scientists and doctors:* ex. *Adie's syndrome* (Holmes – Adie syndrome) – an abnormality of the pupils of the eyes, often affecting only one eye (this syndrome was described by W.J. Adie; Sir G.M. Holmes (1876–1965), British neurologist) [6, p. 11].

The word *surgery* originated from Greek *cheirurgia*: the word *cheir* – “hand” and *ergon* – “work, labor and action” and as it is mentioned in Oxford Concise Medical dictionary, *surgery* is the branch of medicine that treats injuries, deformities, or disease by operation or manipulation [6, p. 709]. It is considered to be one of the oldest branches of medicine because, as an independent science, it began its existence many, many centuries ago.

The History of surgery and surgical terminology can be divided into several stages during which the certain specific knowledge

and skills of the first surgeons were formed. The surgical manuscripts that belong to the middle of the IIrd millennium are considered to be the first that came to us. Nowadays the scientists all over the world affirm that Egyptian medicine of the ancient times is thought to be the most perfect and enjoyed wide recognition. According to the statements of Greek historian *Herodotus*, the ancient Egyptian doctors had certain specialization: "Every doctor can cure only one disease. That is why, there are many doctors among them: some of them cure eyes, other doctors cure head; there are doctors, who cure teeth; other doctors cure stomach, another – cure internal diseases" [7, p. 34]. And of course, there were surgeons among them. The forefather in ancient Egypt was Imhotep, who lived at the beginning of the IIIrd millennium B.C. Imhotep is considered to be the author of one of the oldest medical work as Ebers Papyrus which belongs to the 1700–1550 years B.C. In this work the instructions for surgical treatment of goiter and the usage of medical salts of the Nile delta were given for the first time. The scientists Vitruvius, who lived in the first century B.C., Pliny, Juvenal, who lived in the first century A.D. 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 the cysts.

The operations in the field of plastic surgery were widely spread in India. The system of punishment included the amputation of the nose in a case of adultery. The surgeons used the skin transplantation to restore the nose or the part of the nose. That's why nowadays the surgeons use the word *Indian plastic surgery* of the nose.

Surgical operations were very popular in ancient China. The doctors used special sharp needles and inserted them into the body and the word *acupuncture* appeared in the language of doctors as the alternative method of treating diseases.

The great ancient physician Hippocrates, who lived between 460–377 years B.C., was the personification of the outstanding achievements of ancient medicine. He proposed the resection of the ribs that still has not lost its importance. The works of Hippocrates testify his experience and observation, confirming his accurate comparison. He believed that the air was the cause of purulent infection and he recommended observing cleanliness while using dressing. Hippocrates prepared the operative field, used boiled rain water, wine, sea water (hypertonic saline). He placed surgery in the forefront in treating diseases and introduced surgical terminology.

In ancient Rome the people thought that surgery occupied the third part of medicine and the famous Roman doctor Celsus mentioned that surgeons cured patients by means of hands. Celsus wrote an encyclopedic work "Arts" ("Artes"), which contained information about hygiene, pathology, therapy and surgery. The contribution of Hippocrates, Celsus in the history of surgery is great, because they laid the scientific foundations of medicine as a science.

Results of the research. The actual material which has been received as a result of total choice of terms-eponyms (there were 1200 terminological units) of the dictionary "Symptoms and Syndromes in Surgery", compelled by I.M. Matyashyn, A.A. Olshanetsky, A.M. Gluzman, leads to the conclusion that:

1. Regarding their productivity the names of symptoms make up 40,9% (491 terms were found); the names of syndromes make up 29,7% (356 terms were found); the names of diseases make up 15,5% (186 terms were found); the names of the tumors make up 4,8% (58 terms were found); the rest – are the names of fractures (1,9% – there were 23 terms), phenomenon (0,5% – there were 6 terms), cysts (0,5% – there were 6 terms) etc.

2. According to their lexical structures the most spread are two component terms – they make up 67%; three component terms make up 23%. The four component terms were not found.

Terms-eponyms are divided into the following groups, such as:

– **Abscesses:** Brodie abscess [8, p. 20].

– **Breath:** Biota breath [8, p. 15].

– **Cysts:** Bäcker cyst [8, p. 22].

– **Diseases:** Addison – Biermer disease [8, p. 3], Besnier – Boeck – Schaumann disease [8, p. 13]; Crohn's disease [8, p. 69]; Laila disease [8, p. 73]; Brill – Symmers disease [8, p. 19]; Jungling disease [8, p. 150].

– **Diverticulum** (pl. diverticula): Bischoff diverticulum [8, p. 15]; Meckel diverticulum [8, p. 83]; Zenter diverticulum [8, p. 141].

– **Epithelioma:** Brooke epithelioma [8, p. 21].

– **Face:** *Hippocrates* face [8, p. 37]. It is observed in patients with severe acute peritonitis, or intestinal obstruction. It is named after Greek philosopher Hippocrates who is considered to be the father of medicine and who first made the description of such face: Hippocrates wrote: "<...> if the face of the patient <...> is as follows: the nose is sharp <...> the temples are dented, the ears are cold and tightened, the lobes of the ears are twisted, the skin on the forehead is firm, stretched and dry <...> if the eyes are afraid of light and are filled with tears, if they constantly move, or strongly protrude, or, conversely, strongly sink; if the pupil is dirty and without gloss <...> if a part of the protein comes out at the close of the eyelids <...> if the eyelid frowns or turns blue or turns pale, and also the lip or nose <...> and the color of the whole face is green, black, or pale, or lead <...> Death is also a sign – lips are loose, hanging, cold and white" [9].

– The names of the **fractures:** Bennet fracture [8, p. 13].

– The names of the **symptoms** of the diseases: (there were 491 terms). Ex. Aaron symptom [8, p. 3], Abadie symptom [8, p. 3], Babes symptom [8, p. 3], Bozzolo symptom [8], Brenner symptom [8, p. 19], Vincent symptom [8, p. 27], Ewart – Teissler symptom [8, p. 150], Jaworski – Meltze symptom [8, p. 151].

– The names of the **syndromes** of the diseases: Bland – White – Garland syndrome [8, p. 15], Budd – Chiari syndrome [8, p. 8]. For the first time this syndrome was described as a separate disease in 1941 by the English physician E. Bywaters, who treated people affected by the bombing in London during the World War II. Patients who spent a long time under the rubble with compressed limbs, observed a special form of shock; Barré – Lieou syndrome [8, p. 12]; Barsony – Teschendorf syndrome [8, p. 11]; Bernard – Soulier syndrome [8, p. 13]; Bland – White – Garland syndrome [8, p. 15]; Verner – Morrison syndrome [8, p. 28], Elsberg – Dyke syndrome [8, p. 150], Ellis – van Creveld syndrome [8, p. 150].

Two syndromes that included the names of literary heroes were found among the terminological units. The *first* is Münchhausen's syndrome [8, p. 95], a mental disorder in which the patient tries to obtain invasive hospital treatment, especially surgery for an illness that is nonexistent [6, p. 475]. Baron von Münchhausen was a literary hero in German literature, who lied all the times while he was telling his funny, imaginable and unreal stories. The second syndrome originated from the name of another literary hero of a fairy tale, Rapunzel. Rapunzel was a very beautiful girl, who had a long hair and who was imprisoned in the tower by her mother, the witch. She had to live in this tower without going out. When her mother decided to visit her, Rapunzel let her hair down and helped her mother to climb the tower. In medicine this syndrome means mental illness when the patients have a habit to swallow their hair.

- **Hernia**: Bochdeleck hernia [8, p. 16], Hesselbah hernia [8, p. 36]; Littre hernia [8, p. 80]; Maidle hernia [8, p. 83].
- **Law**: Aran law [8, p. 6].
- **Line**: Damoise line [8, p. 44].
- **Metastases**: Virchow metastasis [8, p. 31] – a dense, painless lymph node located above the left clavicle near the attachment of the sternocleidomastoid muscle.
- **Tumors**: Barré – Masson tumor [8, p. 11], Abricosov tumor (was described in 1925 and studied in details by pathologist A.I. Abrikosov, 1875–1955) [8, p. 3]; Burkitt tumor [8, p. 10], Ewing tumor [8, p. 150], Wilms tumor [8, p. 30].
- **Edema**: *Quincke* edema [8, p. 59] is acute allergic edema which occurs suddenly and lasts from a few hours to several days.
- **Phenomenon**: Arthus phenomenon [8, p. 7].
- **Point**: Ker point [8, p. 62], Mac Burnay Point [8, p. 83].
- **Triad**: Borchardt triad [8, p. 17]; Leriche triad [8, p. 78], Kiltian triad [8, p. 63].
- **Bowls**: Claubert Bowls [8, p. 65] is a symptom that is characteristic of intestinal obstruction.
- **Ulcers**: Carling's ulcer [8, p. 57].
- **Triangle**: Bryant triangle [8, p. 19], Guthrie triangle [8, p. 43].

Some confusing terms were found:

A dandy (also known as a beau or gallant) is a term historically used to describe a man who places particular importance upon physical appearance, refined language, and leisurely hobbies.

In surgery: Dandy – Walker syndrome. The patient feels unsteadiness of balance and an abnormal gait and it may be associated with hydrocephalus (W.E. Dandy (1886–1946) and A.E. Walker (1907–1995), US surgeons) [6, p. 189].

Even the pupils know about a famous Russian geographer and explorer *Nickolay Przhevalsky* who introduced to the world a small, wide horse, which later was named after him. *In surgery* there was a doctor, whose name was *Przhevalsky* and who described the symptom, when the patient had a stress and narrowing of intercostals(s) spaces. Now we know this symptom as *Przhevalsky symptom* [8, p. 110]. But when the authors of the article decided to find more information about this doctor, only the information about Russian geographer was found.

John Fitzgerald “Jack” Kennedy (May 29, 1917 – November 22, 1963), was an American politician who served as the 35 th President of the United States from January 1961 until his assassination in November 1963. *Kennedy's syndrome*: A rare eye disorder involving the association of optic atrophy (loss of optic nerves) and scotoma (blind spot in vision) in one eye and papilledema (swelling of the optic disc) in the other [9].

Pickwick syndrome (1947). In surgery, 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. The hero of the novel was overweight and wanted to sleep all the time. The syndrome was analyzed and described for the first time by prominent Canadian physician William Osler (1849–1919) in 1918.

Conclusions and Perspectives. The widespread usage of terms-eponyms which are the part of the general medical terminological system is characteristic for surgical terminology. They respond to all requirements to the term: they express a tendency to uniqueness, internationality, they are laconic by content.

Eponymic terms function as a part of a language culture and submit with morphological, grammatical and phonetic rules of the language in which they are used.

In the above mentioned research the authors paid their attention to the problems of usage of terms-eponyms in the names of diseases, symptoms, syndromes, fractures etc. The next research will be devoted to the history of appearance of the surgical instruments, where the terms-eponyms (anthroponyms) are used.

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Семенко І. В., Томка І. Е., Шаласва А. В. Місце і роль термінів-епонімів у медичній термінології хірургії

Анотація. У статті розглянуто зародження хірургії як науки, розвиток хірургічної медичної термінології. Визначено місце і роль власних імен, термінів-епонімів у хірургії. Здійснено детальну класифікацію термінів-епонімів.

Ключові слова: хірургія, епонім, епонімія, термінологія хірургії, синдром, симптом.

Семенко И. В., Томка И. Е., Шалаева А. В. Место и роль терминов-эпонимов в медицинской терминологии хирургии

Аннотация. В статье рассмотрено зарождение хирургии как науки, развитие хирургической медицинской терминологии. Определено место и роль собственных имен, терминов-эпонимов в хирургии. Осуществлено детальную классификацию терминов-эпонимов.

Ключевые слова: хирургия, эпоним, эпонимия, терминология хирургии, синдром, симптом.