

Medical eponyms from linguistic and historical points of view

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Dear Readers,

I read with great interest the letter of Barbara Nieradko-Iwanicka entitled “National eponyms in medicine” [1]. I wish to congratulate the author and extend my thanks to her for addressing the subject of medical eponyms, which I have been interested in for many years. I also found a very interesting comment on the paper by Yale et al. [2], who focused on the rationale of usage of eponyms in medical terminology. The subject of eponyms in medicine is very broad, and I am limiting my comments to a few linguistic and historical aspects only.

1. Eponym in linguistics is a word or phrase derived from a proper noun. In a broad sense the term is used also for the meaning of the proper noun, i.e. a person, animal, place, thing or phenomenon. In order to avoid ambiguity, the term eponimism (different from “eponym”, i.e. a person or thing that “gives” the name) was suggested but has not been generally accepted. Historically, the eponym (from Greek *επωνυμιοσ* = the one who is giving the name) was a municipal official in Ancient Greece honoured by using his name as the name of the month in the local calendar. It is important to distinguish names of streets, schools, hospitals (e.g. Spartańska Street, Albert Einstein Medical College) from eponyms although some terms which were initially only names evolved into eponyms. The Hoover Company was founded by William Henry “Boss” Hoover, and became a famous producer of vacuum cleaners. Over the years, the term “hoover” became a synonym of vacuum cleaner (like in Europe the words “lux” and “electrolux”) and the verb “to hoover (something)” is used for cleaning a carpet, floor, etc., with a vacuum cleaner.

2. Generally, there are two type of eponyms: eponyms which became common words, and those that denote more specific medical phenomena. Proper nouns are capitalized in English or the eponymous part of the term is capitalized. An example of the first type of eponyms is the word “pasteurization”. Obviously, the word originated from the name of the great French scientist Louis

Pasteur. When we drink a glass of milk poured from a milk carton with an inscription “pasteurized milk” we do not always have at the back of our minds the great experiments of Louis Pasteur.

The second type of eponyms is very common. Several diseases, symptoms, signs, surgical procedures or tools, clinical or laboratory tests, reagents as well as anatomical or pathological structures are named with eponyms. Currently, non-possessive style is recommended, e.g. the term Cushing disease is preferred to Cushing’s disease [3]. The vast majority of eponyms are derived from names of physicians who described for the first time medical phenomena or invented tools, tests or procedures. Nurses gave names to some eponyms as well (e.g. Sister Mary Joseph nodule, a metastatic lesion of the umbilicus [4]).

There are also medical eponyms originating from geographical terms, for example, as mentioned by Nieradko-Iwanicka, Rocky Mountain spotted fever or Warsaw breakage syndrome, a rare heritable disorder characterized by microcephaly, growth retardation and abnormal skin pigmentation [5].

Some eponyms were coined from names of fictitious literary characters. The most famous is Pickwick syndrome, a literary description of which can be found in the famous novel *The Posthumous Papers of the Pickwick Club* by Charles Dickens. Another eponym coined from the name of a heroine of a story with Polish roots is Yentl syndrome. The story “Yentl the Yeshiva Boy” was written in 1962 by Isaac Bashevis Singer, and later adapted for the stage and a romantic musical drama film. Yentl Mendel was a girl living in Poland in an Ashkenazi shtetl (i.e. a small town with a large Jewish population). She secretly received instruction in the Talmud delivered to her by her father, Rabbi Mendel. Such instruction was prohibited to women according to the custom of the community. After her father’s death, Yentl cut her hair short, wore men’s clothes and took her late brother’s name (Anschel) in order to be admitted to a Jewish religious

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school (yeshiva) in Bychawa, a city in Southern-Eastern Poland. Later, she was involved in a number of romantic affairs. The eponym “Yentl syndrome” described the different course of action that heart attacks usually follow for women than for men [6–8].

About 30 medical eponyms are coined based on ancient mythology [for review see: 9]. Some are used relatively frequently, for example the term “panic” is named after the Greek god Pan. Pan (Greek: Πάν) was a god of nature, shepherds and flocks. He was a companion of the nymphs. Ancient Greeks believed that the generally peaceful god Pan when accidentally awakened from his nap would give a loud shout that scared animals and humans, and panic is a sudden sensation of fear. It may occur in some psychiatric disorders.

Basic medical sciences, including biochemistry, have a number of eponyms as well. For example, Klotho protein is a membrane protein with enzymatic activity. It is suggested that overexpressing of Klotho protein is associated with longer life. Klotho (or Clotho) (Greek: Κλωθω) was one of the Three Fates or Moirai, goddesses controlling human life. She was responsible for spinning the thread of human life. Janus kinases are intracellular enzymes with activity of tyrosine kinases that transduce cytokine-mediated signals from cell-membrane receptors via the JAK-STAT pathways. The kinases possess two near-identical phosphate-transferring domains. The domains have different function. Janus (Latin: Janus) was the Roman god of gates, transitions, and passages as well as beginnings and endings. He was depicted as having two faces, since he looks to the future and to the past.

Other sources of medical eponyms are possible. A few eponyms are coined from names of patients suffering from rare or previously unknown disorders. According to Wikipedia, Hageman factor was first discovered in 1955 when a routine preoperative blood sample of the 37-year-old railroad brakeman John Hageman was found to have prolonged clotting time in test tubes, even though he had no haemorrhagic symptoms. Hageman was then examined by the haematologist Oscar Ratnoff, who found that Hageman lacked a previously unidentified clotting factor. Antinuclear antibodies, known as anti-Sm antibodies, reacted with the Sm proteins, which were first discovered as antigens targeted by the antibodies in a patient with a form of systemic lupus erythematosus. They were named Sm proteins in honour of Stephanie Smith, a patient who suffered from this disease.

Examples of other patients who gave their names to medical eponyms are: Persival Pott (Pott fracture), Stephen Christmas (Christmas factor, IX factor of clotting and Christmas disease, haemophilia B), and the Hart-

nups, a family living in London and suffering from Hartnup disease (a metabolic disorder involving tryptophan).

3. One of the major points against medical eponyms is their lack of accuracy. The name is given to a medical phenomenon in order to honour the person to whom a significant contribution of priority of discovery, description or invention of the phenomenon, disease or medical device is generally attributed. Historical investigations in many cases indicated that the discovery or invention was achieved by a group of independent scientists and the first description is forgotten and discovered relatively late after the date of coining of the eponym. In 1955, the American physician Jerome W. Conn described a case of primary hyperaldosteronism, known widely as Conn syndrome. The same phenomenon was reported in two patients in 1953 by a Polish physician, Michał Lityński [10]. In 1991, I published in *The Lancet* a letter indicating the priority of Lityński [11]. Two or three years later, Norman Kaplan, the author of the famous textbook *Hypertension*, contacted me and requested a photocopy of the Polish paper by Lityński. I delivered it to Norman, and since the next edition of the textbook the pioneering contribution of Lityński has been described in it. On the other hand, no one, except for a short Polish paper [12], has suggested changing the name of the syndrome to Lityński-Conn syndrome.

4. Medical eponyms are sometimes a subject of national pride. National medical literature uses eponyms enlarged with extra names of the nationals. Of course, in many cases the local physician contributed significantly to the description of the disease and his/her report had appeared in print earlier than the world-famous paper on the subject. It may also be a question of tradition. Ankylosing spondylitis in German-speaking countries is known as Bekhterev disease (*Bechterewsche Krankheit* or *morbus Bechterew*). Older physicians using French language remember the name of the disease as Marie-Strümpell disease.

The disease of gastrointestinal tract Crohn disease was named after Burrill Bernard Crohn [13]. He and Leon Ginzburg and Gordon Oppenheimer published in the *Journal of the American Medical Association* in 1932 a description of 14 cases of so-called regional colitis. There were a few papers of case description that appeared earlier, including those by Moschowitz and Wilensky (1923), Dalziel (1913) and Antoni Leśniowski (1903). The disease in Poland is known as Leśniowski-Crohn disease [14]. Moreover, the role of Burrill B. Crohn in the discovery and specific description of the disease is questioned. According to Smith and Wakefield [13] the policy of the journal was to list authors alphabetically rather than by the importance of their

contribution. There was also a dispute between the authors on their contribution to the final paper [15]. These two abovementioned aspects are discussed by Yale et al. [2] in their valuable comment.

5. Some eponyms may be confusing. There are two eponyms related to the name “Whipple”. Whipple disease was described by George Hoyt Whipple, an American pathologist, while the Whipple procedure or surgery (a pancreaticoduodenectomy) was improved by the American surgeon Allen Whipple and has his name. In some languages (e.g. Slavic), it is important to know the gender of the individual honoured in the eponym [14].

6. Discussing medical eponyms, we commonly forget Latin or Latin-derived names of bacteria. The term *Rickettsia prowazekii* honoured Howard Taylor Ricketts, an American physician who died from epidemic typhus, and Stanislaus von Prowazek, a colleague of the Brazilian discoverer of the bacterium Henrique da Rocha Lima (1916). Da Rocha Lima named the microorganism “prowazekii” to commemorate Stanislaus von Prowazek who had died from typhus in 1915. There is also a bacterium causing paratyphus, today called *Salmonella hirszfeldi* (to honour Ludwik Hirszfeld).

7. It is well known and discussed in the paper by Nieradko-Iwanicka that several eponyms were retracted due to the Nazi sympathizing attitude of the persons who gave the name [16].

Summing up, studies on eponyms indicate clearly that the history of medicine is much more than a boring list of dates, names and hospital locations. I do believe that discussion on eponyms, also in rheumatology [see: 17] is one of the best ways to attract young colleagues to the history of medicine instead of formal lectures on the past of our profession. I fully agree and support the view of Yale et al. [2] to avoid premature and emotionally driven elimination of eponyms until they have been investigated from historical, medical, and linguistic points of view.

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