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Is Aging a Disease? Biodemographers' Point of View¹

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A new generation of researchers, free and clear of the traditional views, has arisen in gerontology. Some representatives of this new generation come with the belief that aging is a disease. In their view, it is necessary to officially recognize aging as a disease with its individual code in the International Statistical Classification of Diseases and Related Health Problems (ICD). This initiative is based on the conviction that the official recognition of aging as a disease will make it possible to radically increase funding for the development of new efficient drugs against aging.

Their efforts are currently focused on the addition of aging to the list of diseases in ICD-11 to be issued in 2018. These attempts may turn out to be successful, provided the interested pharmaceutical companies lobby for them.

Other, more experienced, gerontologists regard this initiative as resembling promotion and marketing activities rather than a scientific revolution in our concept of aging. Aging already has its individual code in ICD, R54. To be fair, it should be noted that some international experts regard R54 as a so-called “garbage” category of codes that formed residually after the exclusion of all of the remaining, more specific, syndromes [5]. Nonetheless, aging code R54 is used in Russia in methodical recommendations on managing patients with senile asthenia [3].

In the design of new geroprotectors and their Food and Drug Administration (FDA) trials, American gerontologists successfully use the term “adult [geriatric] failure to thrive” (R62.7), which is interpretable in Russia as “the syndrome of psychophysical fading” or “the apathy of elder age.” This issue was publicly discussed in detail at the congress of the International Association of Gerontology and Geriatrics (IAGG) in San Francisco, United States, in June 2017; James L. Kirkland (Mayo Clinic, Rochester, Minnesota, United States), a well-known American gerontologist, and the authors of this article also participated in this discussion. Thus, there is no need to declare that aging is a disease.

In our view, aging differs from disease in the same way that cause differs from effect. Aging is the cause of many age-related diseases. Correspondingly, these age-related diseases are a consequence of aging. Thus, it is an oversimplification to recognize aging as a disease (as to equate cause and effect).

¹Comments to the paper by V.M. Novoselov “Is Aging a Disease?”

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Not every disease is associated with aging, but any disease progression with age is related to aging: aging is the “maturation” of the diseases with age [4].

Aging is an umbrella term for the totality of processes, each of which contributes to bodily deterioration with age. In other words, any process involved in age-related degradation acts as a component of the aging process.

Aging is too broad a concept to be reduced to a single, specific pathology. Aging exists in inanimate nature as well and is defined in reliability theory as the process of an increase in the intensity of failures of an examined system with its age [1, 4]. In the context of reliability theory, diseases are only special cases of system failure (dysfunction). However, aging itself is not a failure of the system but rather a process that increases the intensity of these failures with age.

On the other hand, we agree with the opinion of V.M. Novoselov [2], a clinical gerontologist, that we should welcome the further addition of age-related diseases to the ICD as was done for sarcopenia.

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