

# Reasons for the Growth Rate of Cancer - Is Improving Health Care System: Hypothesis

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Physicians, prolonging the life of the carriers of harmful mutations, reduce the reliability of the existence of supraorganismal systems of populations. Cancer – this is probably a compensatory response of populations on these activities of physicians.

In some wild animals, under the influence of anthropogenic deterioration of the environment, evolution has taken the path of reducing life expectancy [1]. This accelerated the change of generations and facilitated the restructuring of the genetic make-up of populations in accordance with a changing environment. The human environment also changes. In place of the rural way of life the city came with its stresses and with the pollution of air, water and food. But the life expectancy of a person has increased. In economically developed countries, life expectancy over the last 160 years has been increasing at an average rate of three months per year [2]. The incidence of cancer also increased. The growth of life expectancy is a consequence of the improvement of the health care system, it has slowed down the natural selection. The aim of the article is to discuss the relationship between its slowdown and the increase in the number of cancer patients.

Systems, in order to protect themselves from external and internal destructive influences, they have to get rid of the part of their subsystems. Trees fall leaves in autumn, the herbs die off, the ecosystems get rid of some of their constituent species. Dictatorial regimes, in order not to be overthrown, it is required to shoot the disloyal citizens. And for the populations to ensure the reliability of existence require the sifting of insufficiently adapted individuals, i.e. natural selection. But in human populations, natural selection is opposed by the health system. The delay caused by it leads to an increase in the number of carriers of harmful mutations, i.e. the accumulation of genetic cargo in populations. It grows, by reducing their homeostatic properties, thus, the needs of the systems do not always coincide with the needs of the subsystems of which they consist. It is useful for each individual individually where the activity of the doctors of the population weakens.

The genetic load in populations is increasing due to endogenous causes. The endogenous weakening of their homeostatic properties is their aging. Living systems have the ability to counteract the harmful changes occurring in them. Populations have this property too. Human cancer - this is probably the way to counteract the population's growth in the genetic load in them, i.e. accumulation of senile changes. This opinion is inclined to the thoughts set forth in the articles of Sommer [3] and A.V. Liechtenstein [4-6]. These researchers suggest that with the help of cancer, individuals that are genetically flawed represent a danger to populations. Malignant neoplasms, they write, killing defective individuals and accelerating this evolution, act for the benefit of populations. Cancer reduces the size of the burdensome population of the genetic load. It is the nurse of evolution. The arguments in favour of the fact that cancer is the engine of evolution it is also given in the book of A.P. Kozlov [7] and the evolution of cancer will be accelerated only when it occurs in individuals who have not yet left offspring or have not completed their reproductive period.

A.G. Golubev [8] proposed the parametabolic theory of aging, according to her in the senile changes of the individual, parametabolic reactions play an important role. They are harmful. The products of parametabolic reactions during ontogeny accumulate in non-renewable cells, because of this, these cells die. Their death is called as senile involution, i.e. aging. Let us apply this theory to the aging process of the population. The activity of doctors aimed at increasing life expectancy is a useful reaction of the population, an analogue of useful biochemical reactions of the individual. But this reaction leads to the accumulation of a genetic load in the population, "an analog of the parametabolic reactions of the individual, and its accumulation by Sommer and A.V. Liechtenstein is the likely cause of the cancer.

The mechanism of growth of malignant tumors in populations of animals and humans is probably included in those cases when environmental conditions change so quickly that natural selection does not keep pace with them. As a result of this lag, the adaptability of populations to the habitat is decreasing and they are beginning to threaten the withdrawal into the non-existence.

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Cancer of a modern person is probably the compensatory response of populations to the activities of doctors struggling to prolong the life of carriers of harmful mutations

Improving the health system will further inhibit natural selection and accelerate the growth of genetic cargo in populations. If Sommer and A.V. Liechtenstein is right, the more successful doctors will cure non-oncological diseases, the more rise in populations will be the genetic load and the more people will suffer from cancer. From the views of Sommer and A.V. Liechtenstein follows that cancer is the price that mankind has to pay for resisting natural selection.

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