

Covid-19 It's Not Only A Virus Who Drives The World

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There was recently some major trouble, which was called COVID-19. Contrary to some skeptics, the coronavirus and the disease it causes are not a myth. Some people were seriously ill and even died. This trouble was regarded as a pandemic (the epidemic covers one or two countries, and the pandemic – many more), which was not quite correct. An epidemic or pandemic is usually declared when the incidence is 5% of the total population. In Russia (rounded 150 million population) according to official statistics [https://yandex.ru/covid19/stat?utm_source=main_notif&geoId=213], in March-September 2020, about 1 million people were infected, i.e. slightly less than 1%, and the number of cases was even lower. Note that coronavirus infection and COVID-19 are fundamentally different things. Most citizens infected with coronavirus (according to various estimates, from 60 to 90%) do not have COVID-19. They have a phenomenon called "asymptomatic virus carrier".

Among all people infected with the virus, less than half (from 10 to 40%) get sick. Among those who are ill, four out of five are ill in a mild or moderate form, mainly with symptoms of a cold. Only 1 out of every five patients (not infected, but sick) is seriously ill. In other words, COVID-19 in severe and even life-threatening form will appear in approximately 2-8% of people infected with coronavirus [https://datalens.yandex/7o7is1q6ikh23?tab=0Ze&utm_source=cbfooter].

In Italy, population of about 60 million, official numbers say that, from the beginning of "pandemia", rounded March, till today the infected people are 1.066.401 (about 1,7% of population). People died are 43.589, less than 5% of infected.

Interesting numbers! And these figures make you think – and what, in fact, is the difference between the majority that, being infected with coronavirus, will be

limited to virus carriers, from the minority that will transfer the disease easily and from those people for whom COVID-19 will be a serious test? Obviously, the answer to this question should determine the tactics and strategy for combating the disease caused by both coronavirus and other infectious diseases.

MICROBES AND US

According to many major scientists (Rudolf Virchow and Louis Pasteur, Nobel laureate Svante Arrhenius and academician-microbiologist Georgy Zavarzin), microorganisms – bacteria, viruses, exist in the Universe forever [Zavarzin, 2011]. Approximately 3.5 billion years ago, they settled our planet and joined the planetary biogeochemical cycles. Only as a result of their Titanic work on Earth appeared oxygen atmosphere and much needed plants bound nitrogen [Zavarzin, 2011]. The first complex forms of life appeared only 500 million years ago, and man – less than 2 million years. In other words, microbes are the true owners of the Planet, and everyone else is just a guest. We came as guests, and we will always have to live in a world of microbes that inhabit the Earth, the Oceans and the body of each of us.

Note that more than 90% of the known microbes (viruses, bacteria, fungi) are harmless, and many are useful and even necessary for us; each person from birth to death carries in his body about 2 kg of symbiotic (friendly) bacteria that provide the needs for the necessary vitamins, hormones, neurotransmitters, growth factors and other necessary products by about 60%, and energy needs – by 90%. Viruses account for about 30% of human genome [Poletaev, Rizzo, Ebrahimi, 2020]. From what has been said, it is clear that thoughtless antimicrobial therapy, indiscriminately killing all microflora (harmful and useful), can cause irreparable damage to health.

ENVIRONMENTAL POLLUTION AND NEW INFECTIOUS DISEASES

Throughout its history, mankind has many times faced epidemics of infectious diseases, including dangerous ones. The appearance of new diseases is inevitability based on a very intense mutability (variability of properties and characteristics) of any representatives of the microcosm. Mass mutations of bacteria and viruses are largely the result of anthropogenic pollution of the environment, including mutagenic compounds such as nitroso compounds, many defoliants, herbicides, pesticides, etc. The intensity of environmental pollution increases progressively from year to year. This inevitably leads to an increase in mutational pressure on all living things and, consequently, to the appearance of more and more new variants of viruses and bacteria. And all this, as a rule, occurs without the participation of military bacteriological laboratories. New microbes that have not had time to adapt evolutionarily to “peaceful coexistence” with the human body can be potential carriers of dangerous infectious diseases.

An example of a new dangerous disease 30 years ago was AIDS. Later, SARS and MERS appeared. One of the latest phenomena of this kind can be called COVID-19. Something new is sure to appear again in a year or two.

WHAT TO DO?

This issue should be resolved in advance. If, as often is the case, a new COVID-19 or something even more dangerous suddenly appears, it may be too late.

Broad-spectrum antibiotics can be developed in advance, even before the expected appearance of a new microbe. But practice shows that the search and testing of new antibiotics is a very complex and expensive undertaking, and microbes are able to form resistance to them relatively quickly, for example, due to the horizontal transfer of drug resistance genes [Poletaev, Rizzo, Ebrahimi, 2020]. Therefore, there are great doubts that if a new infectious disease of bacterial etiology occurs, new broad-spectrum antibiotics will be able to really help.

Hopes for new vaccine products are also doubtful. *First*, their elaboration can be started only after receiving the pathogen itself (its antigens), i.e. after the beginning of a new epidemic. *Secondly*, obtaining antigens of the pathogen does not guarantee the

development of an effective preventive vaccine. For some dangerous diseases (tuberculosis, leprosy, AIDS, etc.), it was not possible to obtain a preventive or curative vaccine against even after decades of work by many groups of clinical immunologists. *Third*, if new infectious diseases occur more and more frequently, it is unlikely that many suitable vaccines can be developed in a time-consuming situation. The fact is that a new vaccine can in principle be “created” in a few months, but it will take years to test its effectiveness and safety. Usually the entire cycle of such tests takes at least five years.

Along the way, we note that the current “effectiveness assessments” of vaccines against the COVID-19 pathogen, based on the registration of increased synthesis of antibodies to virus antigens, are not a real confirmation of the effectiveness of the vaccine. First, the increased level of antibodies does not reflect the activity of cytotoxic T-lymphocytes – this is the main immune tool of antiviral protection. Secondly, the development of any infectious disease is necessarily accompanied by an increase in the synthesis of antibodies to the antigens of infectious agents, but increased levels of antibodies in patients may not affect the development and course of the disease. Patients with tuberculosis or AIDS are a good example. It is known that significantly increased production of antibodies to pathogen antigens (Mycobacterium tuberculosis or HIV viruses), the disease does not stop. **In other words, the criterion for the effectiveness of any anti-infectious vaccine can only be a significant decrease in the INCIDENCE (in the epidemic zone) in vaccinated individuals, compared with non-vaccinated ones, but not an increase in antibody synthesis induced by vaccination.**

IN A WAITING SITUATION

So, again, for many millennia, humanity has faced and probably will always face new infectious diseases. Something new and dangerous is bound to appear in a year or two. The question of what to do when a new COVID suddenly appears should be decided now. In all likelihood, neither new antibiotics nor new vaccines will solve the problem. What to do?

Let us remind you that less than half of people who were infected with coronavirus (from 10 to 40%) were ill with COVID-19, and from 60 to 90% were asymptomatic virus carriers. But VIRUS-CARRYING IS NOT a DISEASE. The figures considered themselves

serve as a hint to solve the problem. They indicate that medical and social problems are most often associated not so much with the next occurrence of a new pathogenic microbe, but with the level of resistance of the main part of the population to infection. In full accordance with Pasteur's aphorism: «*the Microbe is nothing, the organism is everything*» [Zaichik, Churilov, 2008]. The decisive condition for the emergence of a severe disease epidemic or its absence is often not the appearance of a new microbe, but the overall sufficient (or insufficient) resistance of people in a given population. Whether we will only be carriers of infection or get sick, and if we get sick, we will easily or severely suffer from the disease – all this is determined by the individual resistance of each individual child or adult. In the case of COVID-19, 60 to 90% of the population in different countries were resistant (immuno-resistant) to it, and their infection in most cases led only to an asymptomatic carrier of the virus.

PROPOSED ACTIVITY

It seems that it is possible to minimize the problems caused by the expected encounter with new infectious agents by organizing mass monitoring of integral health indicators and the state of General immunoresistance of citizens. If certain violations are detected in a part of the examined subjects, it will be necessary to clarify the situation with the help of additional studies and individual prescriptions for targeted correction of the situation. Moreover, all activities can be started in advance and implemented in three consecutive stages.

Stage I. Organizational measures are being taken to widely introduce laboratory screening of adults and children based on the ELI-Test (“molecular medical examination”) immunoassay technology. These methods were developed to assess the health status of the population of the regions affected by the Chernobyl disaster. ELI-Tests are performed using enzyme immunoassay (ELISA), and allow to assess the state of General immunoresistance of the subject and to identify both initial (preclinical) and advanced pathological changes in the main organs and systems of the human body [Poletaev, Rizzo, 2019; Poletaev et al., 2020]. Currently, ELI-Tests are successfully used in hundreds of medical institutions in Russia. Recently introduced in other countries like Italy and Albania.

Stage II. Additional laboratory tests are conducted to clarify the health status of individuals who at the first stage showed signs of disorders in certain organs and systems. For example, if a marked decrease in the overall activity of the immune system of the subject is detected, he/she is additionally assigned to determine the concentration of vitamin D3 in the blood, assess the content of toxic trace elements in the hair, etc. If inflammatory changes are detected in the small or large intestine, food intolerance to the main food products is determined and the composition of the symbiotic and pathogenic intestinal microflora is analyzed. Depending on the nature and location of the changes identified at the first stage, other targeted studies are conducted to clarify the state of the individual's body as necessary [Poletaev et al., 2020].

Stage III. Targeted corrective measures of individual orientation are carried out using previously developed algorithms and subsequent laboratory evaluation of the achieved results. Our long-term experience shows that the initial reduced immunoresistance can be effectively increased within two to four months. Previously disturbed metabolic processes, such as those associated with carbohydrate metabolism disorders, are effectively normalized. There is a noticeable decrease in the severity of fibrosis in the lung tissue, for example, caused by a previously transferred COVID-19, normalization of systemic and/or local microcirculation (capillary blood flow) is observed.

CONCLUSION

Data from our long-term observations show that up to 30-40% of Russian citizens (adults) have a noticeable decrease in the overall immune resistance of the body, and, accordingly, are potential victims of any epidemic, including COVID-19. Many conditionally healthy individuals show hidden abnormalities in the work of other major organs and systems. All this negatively affects the General health of the individuals concerned and determines their increased susceptibility to any infectious diseases.

Therefore, the main attention should be paid not so much on the organization of medical measures aimed at rehabilitating people already affected by the epidemic, but to measures aimed to increase the overall anti-infection resistance of large groups of citizens («*the Microbe is nothing, the organism is everything*»). Along the way, specialists can search for

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new anti-infective drugs and develop new vaccines, without putting these activities at the top of the entire strategy.

In our opinion, the implementation of the proposed strategy will ensure that neither seasonal influenza, nor COVID-19, or any other infectious diseases will be accompanied by disastrous consequences for human health or economic situation.

REFERENCES

[1] Poletaev A., Rizzo C. (2019). New approaches to early detection of pathological changes in the human body. ELI-Viscero-Test (molecular clinical

examination). Guidelines for Physicians. (from 8th Russian Edition). MRC Immunculus Edition. Moscow.

[2] Poletaev A., Rizzo C., Ebrahimi M.(2020). From molecules to organisms. ISBN: 978-1-53617-551-6. 2020. Nova Science Publishers. New York.

[3] Zaichik A. Sh., Churilov L. P. (2008). General pathophysiology with the basics of immunopathology. ELBI Publishers, St.-Petersburg.

[4] Zavarzin G. A. (2011). Kakosphera. Moscow, Rhutenica Publishers.

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