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Pandemic as an Ideological Dead End of Modern Medicine

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Abstract

For most people on our planet, the beginning of the current COVID-19 pandemic was a complete surprise and looks like a sudden disaster. However, experts do not have the right to argue in this way, since the cause of this disaster has long been known to medicine. Moreover, similar epidemics of this infection have already been observed in the recent past, had a very similar scenario, but with less coverage of the population and territories. The identity of the causative agent of today's pandemic with the two previous outbreaks, SARS in 2002-2004 and MERS in 2012-2013, is even reflected in the terminology-CoV, CoV-1 and CoV-2 [1].

Keywords

Acute Pneumonia, Coronavirus Infection, COVID-19, Modern Medicine, Pandemic

Abbreviations

AP: Acute Pneumonia; COVID-19: Coronavirus Disease 2019; MERS: Middle East Respiratory Syndrome; SARS: Severe Acute Respiratory Syndrome

Background

The above information contradicts the surprise factor in the current pandemic. Medicine has already had experience in combating the spread of coronavirus infection and could provide and develop a set of measures and therapeutic and preventive measures in the event of the return of such phenomena. There was enough time for this, especially since outbreaks of infection were repeated.

In addition, in the last couple of decades, there has been an increase in the proportion of viral lesions among patients with acute pneumonia [2]. The annual number of such diseases in the world was estimated at 200 million cases [3]. The latter indicator was 4 times higher than the overall indicator of the current pandemic, but this situation was not accompanied by an epidemiological and social boom, as in the current period. But it should be emphasized that this is not just about quantity. If in previous years the total indicator reflected the number of cases, today this figure shows the number of infected people, many of whom do not develop the disease.

If we add to this statistics the total annual number of patients with acute pneumonia in the world, we get a very interesting and instructive comparison. For example, a decade and a half ago, AP was diagnosed in 450 million people worldwide, and the death rate among them reached 4 million [4,5]. However, both the latest and previous figures were not particularly advertised and were not even known to all specialists. Today, anyone interested in the latest news can receive daily updates on the number of infected, sick and dead people during the pandemic. This information innovation, in my opinion, goes beyond the topic and requires, at least, the analysis of psychologists.

Comparative statistics clearly show that the current sense of anxiety and tension in society is primarily due to the widespread replication of the results of the pandemic. Ten years ago, when such indicators were much higher, the General public did not know about this, and experts did not attach such importance to this fact and did not discuss ways out of this situation with such enthusiasm as they do now. But the main reasons for this situation have existed for many years and have long required careful analysis and radical solutions. Now the release of information outside the professional circle is a very important incentive to find answers to the questions that are worth asking. Unfortunately, this search continues based on the previous strategy, which does not allow us to hope for an optimal solution to the problem.

Previously, during the period of predominance of bacterial forms of AP, the main misconception in the strategy of the disease was an exaggerated idea of the exclusive role of the pathogen in this process. Having no objective diagnostic data on the pathogen in most patients with AP, all the problems and treatment failures in them were nevertheless explained by the special virulence of the infection. However, this disease was not classified as contagious. The origins of this narrow concept of AP arose against the background of the first phenomenal success of antibiotic therapy, which pushed back for many years the predictions about the long-term consequences of this therapy, and this point of view continued to expand, despite many contradictory facts. If the strategy were revised, it would undoubtedly help avoid many complications and adverse outcomes. The latter statement is based on objective research and representative clinical trials conducted more than three decades ago [6].

The solution to the current situation with the coronavirus pandemic mainly by finding ways to neutralize and suppress the pathogen at first glance looks logical and reasonable. Indeed, this infection is contagious and capable of rapid spread, which automatically emphasizes the strict implementation of sanitary and anti-epidemic measures. But today it is already known that such measures do not guarantee absolute protection. What happens if an infection does occur?

First, it makes sense to go back to global COVID-19 statistics. It has already been noted above that not every person who has confirmation of this infection develops the disease. Observation of large groups of people isolated due to the detection of coronavirus carriers among them gave very interesting and instructive results [7,8]. Long-term cohabitation in the same conditions very convincingly demonstrated an infinite range of individual susceptibility to the same type of infection, which was confirmed from completely asymptomatic to fatal outcomes. In this case, it does not make sense to assume differences in the virulence of strains of the same pathogen in different patients, does it? But this explanation accompanied bacterial forms of AP for many years, although the essence of the phenomenon was the same.

The main cause of the disease in coronavirus infection is pneumonia with clinical, radiological and pathoanatomic confirmation of the diagnosis [9-13]. Currently, a search is underway for specific treatment of viral pneumonia in General and coronavirus in particular, but so far there are no reliable results [14-17]. Despite such "unprotected rear areas", many patients with coronavirus infection carry the disease in a mild form and are not subject to hospitalization. In fact, we are talking about an untreated disease that the patient copes with independently. If you try to draw the first conclusions at this stage of the analysis, it turns out that most infected people experience this "meeting" quite safely and the whole situation does not look so frightening and hopeless.

However, the whole essence of not only coronavirus infection, but also the entire problem of AP is concentrated in a group of patients who, as a result of the negative dynamics of the disease, are hospitalized and concentrated in specialized departments. At the same time, the more aggressive the process, the brighter and more noticeable its features. Nature itself concentrates a group of particularly severe patients for us, trying to identify exactly those cases when the body does not have time to use compensatory and adaptive reactions. And these manifestations are also a continuation and reflection of individual qualities, and are not due to the virulence of the pathogen.

In such situations, the diagnosis of AP also remains dependent on the presence of inflammatory changes in the lung tissue, and not on the presence of the pathogen. A certain relationship between the severity of the clinical picture and the volume of organ damage exists and is recognized, but there is no argument to prove that these individual differences are due only to the quality of the pathogen. Again, we have come to one of the main misconceptions in the assessment of AP, which determines the crucial role of the pathogen in the dynamics of the disease. This interpretation of the course of the disease today does not stand up to criticism and requires a return of attention to the assessment of the features of the affected organ.

Classical materials on the nature and dynamics of inflammatory processes have been studied in detail and make up the Golden Fund of medical science. These rules and regularities existed in nature even before their discovery by man. Therefore, their role and influence on the development of such diseases will not disappear and will not be subject to our wishes and interpretations. In this regard, it is only necessary to recall that the basis of the pathological transformation of tissues in inflammation is a vascular reaction, and the inflammatory process itself is accompanied by five classic signs, including a violation of the function of the affected structures.

Currently, depressive and panic moods even among medical staff occur after unsuccessful attempts to help hospitalized patients [18-20]. This is the result, on the one hand, of the lack of clear prognostic criteria about the possibility of the disease as a whole and its course, and on the other-the lack of effective treatment. Today, more than ever, the question arises about the pathology of which organ we are talking about when we are diagnosed with AP. This is not a reservation at all, since for many recent years the treatment of AP has been carried out in accordance with the General, rather than specific, principles of this disease. It should be remembered that AP is the only inflammatory process that develops in the vessels of the small circle of blood circulation, which has its own cardinal differences and is the complete functional opposite of the large circle.

If, in the end, the unique features of the pathogenesis of AP are not only taken into account, but also determine the choice of treatment methods, it will become clear that the treatment of this disease in the case of aggressive development can be effective only with emergency pathogenetic methods of care, which are fundamentally different from the treatment of inflammation of another localization. In such situations, when the body cannot independently adapt its pulmonary blood flow to suddenly changed conditions, the greatest effect can be achieved using the methods of so-called alternative medicine. Methods such as cupping therapy and short-term cooling of the patient's body have been tested for centuries and can now pass objective testing [6].

As we continue to view these methods as alternative medicine, we must not forget that modern traditional medicine does not have its own alternative to these therapeutic efforts. Therefore, it is not entirely logical and legitimate to classify them as alternative methods without offering any effective measures of assistance in return. Ongoing palliative care for patients with COVID-19 pneumonia in the form of oxygen insufflation and mechanical ventilation is actually a passive monitoring of patients' ability to overcome this difficult test [21-27]. Isn't this too expensive a price?

Dear colleagues, at the beginning of my career, medicine faced an equally acute problem caused by the "staphylococcal catastrophe". The only difference between that period and the current situation was the lack of

evidence of infection spread through contact with patients and, as a result, the lack of extensive anti-epidemic and quarantine measures. The statistics of that period did not differ fundamentally from the indicators of morbidity and mortality in the current pandemic.

The results of the fight against *Staphylococcus* are now known to everyone, and *Staphylococcus* itself has survived many of its pursuers, continuing to be one of the pathogens of AP and acquiring resistant strains as a result of therapeutic aggression. A similar story was repeated in the recent past with pneumococcus, and additional pneumococcal vaccination did not radically change the results of treatment.

When we said above that all the nuances in solving the problem of AP are concentrated in the group of the most severe patients, it should be borne in mind that the mortality rate for bacterial forms of the disease among those hospitalized in intensive care units a few years ago was 36-50% [28-30], and now this figure for coronavirus is 40-50% [21]. The natural question that should arise when comparing these indicators is related to the popular statement that a coronavirus infection is a sudden disaster that dramatically worsens the results of treatment. What evidence is this opinion based on? Current statistics do not show any negative dynamics among patients. The only significant change that occurred during the pandemic and radically changed our lives is due to the introduction of quarantine measures.

The development of this situation cannot be considered in isolation from the long-term use of antibiotics. It was during their use that there was a change of leaders among the pathogens of AP and *Streptococcus pneumoniae*, which was not accidentally so named and since its discovery was considered the main cause of the disease, began to lose its predominance. To date, a long-term imbalance between the body and its accompanying micro biota has led to the beginning of the viral era of inflammatory processes. This is not the first time that the same coronavirus has led to an epidemic. The future will show how effective vaccination will be in this situation, but cases of relapses in the current pandemic, which are periodically reported by the media, do not inspire complete optimism.

The sudden transition from the predominance of bacterial forms of AP to viral ones eliminated the usual scheme of prescribing antibiotics, the implementation of which created a sense of accomplishment. Although, as we can see, the final results among patients do not differ in a sharp deterioration, the loss of the usual treatment regimen had a strong psychological impact on the medical staff [18-20]. In this regard, there is a sense of almost complete confidence that if antibiotics had an antiviral effect and remained on the treatment list as the main means, the pandemic would have had a much smaller psychotropic effect.

Assumptions about the psychological role of antibiotic therapy are further supported by attitudes to it during the pandemic. The lack of therapeutic effect of antibiotics in viral diseases is well known to specialists, but this does not prevent their use in coronavirus pneumonia in 70-80% of patients, although concomitant bacterial or fungal co-infection was detected in isolated cases [31-33].

The onset of the pandemic has clearly identified two areas that must be taken into account and accepted as conditions for further addressing the entire problem. On the one hand, the pandemic should be considered as a serious signal of nature that the long-term trend of suppression of micro flora has led to qualitatively new features of AP. On the other hand, many years of one-sided evaluation of antibiotics as an absolute treatment for inflammatory processes has led to a distortion of views on the nature of such diseases, while ignoring the fundamental foundations of medical science. Therefore, the situation in which medicine today tries to help patients by continuing to adhere to the same strategy is the result of its own short-sightedness and ideological delusions, and not “the machinations” of the world around us.

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