Acute Pneumonia: Biological Rules and Laws Require Attention and Respect

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Received date: January 06, 2020; Accepted date: January 20, 2020; Published date: January 27, 2020

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Perspective

Various aspects of human life proceed according to the existing biological rules and laws regardless of our consciousness. The influence of such biological stereotypes is manifested in all possible situations, including in the state of disease. The presence of certain patterns in the development of diseases allows them to distinguish and classify. The identification of such biological patterns was given great importance throughout the history of medicine and established and proven facts were immediately included in the basic training program of doctors. Therefore, at first glance it may seem that modern curricula of medical students include many abstract topics and theoretical disciplines that are very far from the practical sections of medicine. However, the increase and accumulation of scientific information is the basis for the progress of medical care, and the assimilation of this information significantly expands the scientific worldview of modern doctors and radically distinguishes their erudition and professional competence from the level of training of medieval healers, is not it?

These traditions and trends in the development of medicine and medical training are well known to readers and are not a revelation. In addition, the tremendous progress made in recent years by the media and communications has made it incredibly easy to obtain almost any information needed. Today, you don’t have to run to lectures or go to the library to find answers to your questions. However, in this context, it is not so much about the principles of formation of medical concepts and worldviews, but about exceptional situations in this process, the existence of which is difficult to find a logical explanation. One of these situations is a common understanding of the nature of acute pneumonia (AP) and the rationale for treatment approaches on this basis. The most dramatic and inexplicable, from my point of view, sign of the situation in the AP are long and persistent theoretical explanations of the nature and mechanisms of the disease, which ignore the proven scientific facts and at the same time are not supported by objective arguments and final results. For such criticism not to be another Declaration, it is necessary to recall scientific materials that have only one interpretation and have long been included in the list of biological axioms. So, first, the facts that is no longer discussed, but accepted as obvious.

1. AP is a classic example of an inflammatory process, and this term is duplicated by a simple synonym-acute inflammation in the lung.

2. At the heart of the inflammatory transformation of tissues is a vascular reaction, which has a strictly defined and consistent change of stages. It is established and proved that the initial stages of inflammation are accompanied by high permeability of the vascular wall with increased edema and tissue infiltration. The chronology of these stages and the corresponding nature of tissue changes have been studied and described not only as a General mechanism of acute inflammatory processes, but also confirmed in AP(1).

3. Any acute inflammatory process is accompanied by 5 integral classical signs (heat, pain, redness, edema, loss of function), which were described several centuries ago by Celsus and Galen. The fifth sign (loss of function) is of the greatest practical importance, which, depending on the localization of the process determines the characteristics and severity of clinical manifestations of the disease.

4. The close interdependence between the small and large circulatory circles has a long history of fame and research. The fundamental differences between these two vascular systems, both anatomical and functional, do not prevent the synchronous and coordinated work of the right and left parts of the heart, which should pump an equal amount of blood. The maintenance of this balance is due to the automatic preservation of the inverse proportions in blood pressure between the two blood circuits and is regulated by the reflex from the baroreceptors of pulmonary vessels (Schwiekg’s reflex).

5. Among the huge number of known modern medicine inflammatory processes of nonspecific etiology only AP is the only disease that occurs and develops in the pool of the small circle of blood circulation.

6. Inflammatory changes in the tissues are inevitably accompanied by irritation of nerve receptors. The most common manifestation of this mechanism is the second classic sign of inflammation-pain. It is well known that in most patients with AP, unlike inflammatory processes of other localization, pain syndrome is absent, since the lung tissue does not contain pain receptors, and pain in AP usually appears when the pleural leaves are involved in the process. However, irritation of other types of receptors in the inflamed lung tissue will be manifested.
by the reaction, the nature of which is due to the type of these receptors.

The above-mentioned scientific facts are not a complete list of obvious materials that are in one way or another related to the problem of AP. However, today they are united by indisputable evidence of objective research and long-term (even centuries) confirmation. The main provisions of each of the above examples have long ceased to be the subject of discussion and debate, but the essence of these phenomena and facts is often considered in clinical medicine as purely scientific information that cannot have direct practical application. From my point of view, this is a serious misconception with far-reaching consequences. In order that such statement was not unreasonable, it is worth remembering some modern ideas of AP and approaches to its treatment which exists many years and is not subject to any doubts, despite the lack of objective proofs and the contradiction to the proved scientific facts.