

ADVANTAGES OF CARDIOINTENSIVE THERAPY AND MODERN CLINICAL DIAGNOSTIC METHODS

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Introduction

Today, it is becoming increasingly clear that the trends in the development of methods for identifying diseases are associated with the need to improve the theory and practice of individual diagnostics. Indications about the need for an individual approach to the patient were expressed by medical luminaries at different times. For example, Paracelsus believed that “it is more important to know who the patient is than what disease he has.” Prominent Russian scientists strongly defended an individual approach to each patient and a “synthetic understanding of the pathological process.” The statements of M. Ya. Mudrova are well known: “The doctor treats the patient, not the disease... Each patient, due to the difference in constitution, requires individual treatment, although the disease is the same” [13], and N. I. Pirogova noted that “it is easier to prevent a disease than to cure it” [17]. In this regard, the unique scientist, clinician and philosopher DD Pletnev believes that “a sick person does not mean a pathological anatomical pattern hidden inside him, determined by certain objective and subjective signs: the whole person is sick. Both the diagnosis of the disease and its therapy should be strictly individual. The doctor deals with various anatomical lesions of the heart or blood vessels, violations of their functional adaptation, violations of the functional coordination of various organs and systems in connection with the constitution, social structure, life, activities, habitual intoxication conditions of a particular person. Following these principles, the direction of individualization of diagnostics and therapy is currently increasingly developing in the clinic.

Research methods and materials

Today, in the age of molecular genetics, the concept of genomic or preventive-predictive-personalized medicine (PPPM) has begun to develop [3, 21, 24], founded by Nobel laureate Jean Dossé, who considers it “the routine use of genotypic analysis, usually in the form of DNA testing, in the provision of medical care.” “Advances in molecular or translational medicine create potential opportunities for their use and widespread application in health care practice” [5, 23],

which is the beginning of the realization of the dreams of many doctors about “effective methods of health care in healthy people”, obtaining accurate markers for the prevention of well-founded diseases, highly sensitive and specific diagnostic methods [4, 22, 25, 26]. At the same time, it is difficult to expect the very rapid creation of "innovative interdisciplinary teams" that, using the latest research in natural sciences, will be able not only to obtain the necessary information about the body, but also to correctly interpret and apply completely different approaches and tools for preventive and therapeutic effects on the body. Moreover, achieving this level will require not only significant financial and time costs, but also a change in the ideology and worldview of doctors, because this will be a completely different medicine [10, 22]. But we are at the beginning of the journey today, and therefore everything must be done to avoid a gap between clinical methods of studying the patient and purely molecular or genetic methods. By introducing advanced technologies and the results of natural science research into medical practice, we must more effectively use the existing and potential opportunities for early diagnosis and treatment. This requires not only the development of new methods of obtaining information (often based on genetics, proteomics, informatics, metabolomics, etc.) [15, 22], but also the improvement of traditional approaches to the detection and recognition of diseases. In this regard, it seems necessary to once again turn to the foundations of the theory and practice of diagnostics, although in a number of cases there are difficulties here due to the lack of clear formulas and definitions for some concepts and terms. In particular, among the many definitions of the concept of "theory", the following seems to us the most acceptable: "diagnostic theory is a systematized set of scientifically based knowledge about the nature and regularities of the process of identifying pathologies and diseases of organs" [6, 18]. The components that make up the theory, reflecting general regularities, should represent theoretical knowledge that characterizes a clearly limited area of reality, the phenomenon under study, through significant connections.

Research results: It is necessary to agree with the philosophers that “theory is something more” than just a means of predicting and describing observed facts: a scientific theory reflects structures and properties that are hidden from direct observation” [12]. An important conclusion follows from this that in the process of theory formation there is an opportunity to create special structures of thinking (in our case, clinical thinking), with the help of which the transformation of theoretical knowledge into practical application occurs. Thus, we believe that clinical thinking for the theory of diagnosis is the cornerstone that connects the theoretical approach of diagnostic methodology with the practical solution of any problem arising in the diagnostic process. Surprisingly, on the one hand, there is the fact of the urgent need to have a single theory and

methodology of diagnostics, and on the other hand, with the general recognition of the need, their absence. At the same time, naturally, there is no universally recognized most effective methodology of a doctor's mental work or clinical thinking, there are a huge number of formulas for their definition. In this regard, avoiding complex neurophysiological and philosophical definitions, we introduce into the concept of "clinical thinking" an element of practical importance, which can only be expressed as the thinking of the doctor, which precedes any actions; the process of the clinician's purposeful, methodologically correct use of theoretical knowledge to solve medical problems. Given the multi-stage nature of the diagnostic process, it is necessary to remember not only the general principles and direction of thinking processes, but also to pay special attention to the development of methodological methods that determine the nature and characteristics of clinical thinking at each stage of the doctor's work [7, 8]. From the point of view of mental operations, diagnosis can be expressed as a complex neurodynamic process aimed at recognizing and differentiating certain similar cases. For effective recognition activity, the doctor must perform a series of sequential purely mental and behavioral operations, the result of which is the adoption of some decisions, combined with the final result or final act, defined as a diagnosis.

Conclusion: The study of the functional state of the heart is the most common in modern medical clinics. It includes several research methods, including:

An ECG (electrocardiography) is a study of the electrical activity of the heart, recording the biopotential from the skin surface on several leads, the result of which is displayed in the form of a graphic curve (cardiogram).

Bicycle ergometry - involves recording the functional activity of the heart during measured physical exercise.

Test with certain drugs - an ECG of the heart is performed after the introduction of certain drugs into the patient's body that change its functional activity.

Holter monitoring is a recording of an electrocardiogram over a very long period of time (usually 24 hours), which allows you to detect attacks of impaired functional activity of the heart.

The choice of the method of functional diagnostics of cardiac pathology is determined by the doctor's preliminary conclusion about the nature of the pathological process in it, as well as the degree of functional disorders or organic changes.

High-quality diagnostics is the basis for subsequent successful and effective treatment of heart diseases. Therefore, most cardiologists combine several methods of instrumental, laboratory and functional research during diagnosis.

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