Aim of the study. The aim of this review is to explore the neurobiology of stress and fear, to summarize the conceptual views of panic attacks (PA) and their association with cardiovascular diseases (CVD), to provide a further strategy for clinical research on PA, and to optimize prevention and treatment interventions.
Methods. Scientific articles up to and including 2024 were searched in six electronic medical databases ("Web of Science", "Scopus", "MEDLINE/PubMed", "EMBASE", "elibrary.ru", "cyberleninka.ru"). Inclusion criteria were: keywords "anxiety disorders, autonomic disorders, COVID-19, PA, CVD, neurobiology of stress and anxiety, non-specific adaptive defense mechanisms and reactions (NADMR) of the organism, non-specific methods of treatment and prevention", cardiovascular diseases, coronary heart disease; types of scientific papers "original clinical studies"; period of research for the last 5 years. Scientific papers with psycho-organic diseases, severe somatic diseases and/or their complications were excluded. The dialectical and systematic approach was used as the methodological framework to address the objectives. The exploratory method of analysis was applied in the review of titles, abstracts and full texts. The deductive method was used to identify private patterns of different concepts. In case of discrepancies, possible solutions were synthesized.
Results. The analysis of studies devoted to different concepts of PA etiology, neurobiology of fear and evolution of views on the pathogenetic relationship between PA and CVD allowed to identify their relationship with NADMR, in which non-linear "mediator" effect would influence the development of PA and CVD. The analysis and synthesis of data from different PA concepts showed that there is no contradiction between the concepts and proposed a PA concept with a broader spectrum of nonlinear "mediator" mechanism of PA. With these results, the author substantiates the association of NADMR with PA and CVD through a nonlinear "mediator" mechanism.
Conclusion. The study of NADMR is important for the improvement of the general physical and mental health and well-being of the population in the long term, especially in conditions of aggressive environmental factors. It also makes it possible to emphasize the need to study complex methods of treatment, including "non-specific", the results of which should be reflected in new standards of treatment of this nosology.