

Diagnostic Role of Alcohol-Oxidizing Enzyme Systems in Forensic Sudden Death

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Funding information
Self-funded

Conflict of interest
None declared by author

ABSTRACT

Alcohol consumption is growing, which in recent years has exceeded by 50%, as are the primary incidence of alcoholism, mortality from ethyl alcohol intoxication and other causes associated with its consumption. Alcohol intoxication has always been a significant health problem worldwide. According to WHO, alcohol abuse is the third most common cause of death in the modern world after cardiovascular and oncological causes. The study of the effect of ethanol on the cardiovascular system has been a priority in various branches of medical science in recent decades. Alcohol-induced heart disease is one of the most important aspects of the pathological effects of alcohol intoxication on the human body. In recent years, the number of cases of sudden cardiac death due to the development of cardiomyopathies has been increasing. Despite many years of study by domestic and foreign scientists of the pathogenesis, clinical and pathomorphological differential diagnostics of ischemic heart disease (IHD) and alcoholic cardiomyopathy (ACMP), these issues require further theoretical and scientific-practical development. Even the terminology of myocardial damage caused by alcohol consumption continues to be discussed. Thus, the study of qualitative and quantitative indicators of the AOFS by histochemical methods significantly expands the possibilities of forensic diagnostics in sudden death from cardiovascular diseases, including against the background of alcohol consumption. Together with the analysis of pathomorphological and forensic chemical studies, the obtained data allow us to reveal and take into account in each specific case the individual characteristics of the body, various variants of thanatogenesis of sudden death in alcoholic cardiomyopathy, ischemic heart disease and other pathologies of internal organs. The aim of this work was to develop and introduce into the practice of forensic medical examination morphohistochemical criteria for the differential diagnosis of alcoholic cardiomyopathy and ischemic heart disease.

Keywords: *Alcohol-oxidizing Enzyme Systems, Forensic diagnostics, Cardiomyopathy*

Citation:

Humphrey C. Katar, Ravi K. Chopra. Diagnostic Role of Alcohol-Oxidizing Enzyme Systems in Forensic Sudden Death. AJMS 2025; 11 (2): 1-11

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