

DOI: <https://doi.org/10.56936/18290825-2023.17.3-20>**MYOCARDIAL INFARCTION AT A YOUNG AGE: ANALYSIS OF CLINICAL CASES FROM THE DUPLEX REGISTRY DATABASE****GAISENOK O.V.**

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ABSTRACT

The objective of this study was to analyze clinical cases of myocardial infarction occurring at a young age within a sample of patients from the Duplex registry database (n=2548), to assess the prevalence of major risk factors and comorbid conditions. Specifically, patients under the age of 45 were selected (n=351).

Patients who experienced post-myocardial infarction were identified using data from clinical and anamnestic records, in accordance with the International Classification of Diseases, 10th Revision - their proportion was 0.85% (n=3) (all male patients; mean age 35 ± 1.4 years). Two out of three were smokers and had other traditional risk factors such as hypertension, dyslipidemia and overweight. In addition, patients had important comorbid diseases: morbid obesity, lymphogranulomatosis, hepatitis with transformation to liver cirrhosis. All of them had confirmed atherosclerosis of the arteries of the lower extremities. Probably one of the main precipitating factors for myocardial infarction development in them was a hereditary predisposition due to a burdened family history, although none of them met the Dutch Lipid Clinics Network criteria for familial hyperlipidemia and none of them underwent genetic testing.

A better understanding of risk factors and pathophysiological pathways in young adults may improve strategies for both preventing and treating myocardial infarction in this patient group. Raising awareness can help identify young individuals at higher risk and determine primary prevention strategies.

However, the identification of patients with premature coronary artery disease by screening for traditional risk factors does not effectively identify patients at risk prior to the diagnosis of myocardial infarction. Additional studies are needed to evaluate new risk factors and apply additional imaging techniques so that these patients can be identified before myocardial infarction occurs.

KEYWORDS: myocardial infarction, young adults, family history of cardiovascular disease, risk factors, male patients, hyperlipidemia, hereditary predisposition.

INTRODUCTION

Despite advancements in combating cardiovascular diseases, the occurrence of myocardial infarction (MI) in younger individuals has not exhibited a decrease over time [Singh A et al, 2018; Wu

W et al, 2020; Sagrais M et al, 2021] and its diagnosis in a patient under the age of 45 has ceased to surprise the medical community and is no longer considered rare. An age analysis of MI patients in

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