

Abstract

Background:

Heroin-induced myocardial infarction (MI) is a rare but life-threatening clinical entity, the mechanisms of which remain incompletely understood. This case report explores the complex interplay of factors contributing to MI in a chronic substance abuser who experienced chest pain shortly after heroin inhalation.

Case History:

A 33-year-old male with a decade-long history of heroin and methamphetamine abuse presented with acute-onset chest pain following heroin inhalation. Despite no prior history of ischemic heart disease nor any major cardiovascular risk factors, the patient suffered an acute anterior MI. The discussion delves into potential mechanisms, including direct toxicity, vasoconstriction, acidosis, hypersensitivity reactions, and autonomic nervous system modulation. Prompt intervention with thrombolytic therapy and secondary prevention measures led to a positive clinical outcome.

Conclusion:

This case emphasizes the importance of recognizing and addressing heroin-induced MI, even in individuals without traditional risk factors. Understanding the multifactorial nature of this condition is crucial for healthcare providers to ensure timely diagnosis and intervention. Further research is needed to elucidate precise mechanisms and risk factors, while harm reduction strategies and addiction treatment remain essential components of holistic care.