





Psychoactive substance abuse and sudden cardiac death: a case report

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Introduction: The abuse of psychoactive substances, including illicit drugs, prescription medications, and certain legal substances, remains a global public health concern. Beyond the well-known neurological and psychological consequences, the relationship between psychoactive substance abuse and cardiovascular events, particularly sudden cardiac death (SCD), is gaining recognition as a critical issue. The use and abuse of various psychoactive substances, including stimulants (e.g., cocaine, amphetamines), opioids (e.g., heroin, fentanyl), cannabis, and even prescription medications (e.g., opioids, benzodiazepines), have been associated with an increased risk of SCD. The mechanisms linking psychoactive substances to SCD are multifaceted and may involve drug-induced arrhythmias, coronary artery spasm, myocardial infarction, and structural cardiac changes. Additionally, the combination of substances or concurrent use of psychoactive drugs and alcohol can further exacerbate the risk.¹⁻³

Case report: We present the case of 27-year-old patient who had a significant medical history. In the first hospitalization in 2016, the patient experienced an out-of-hospital cardiorespiratory arrest due to ventricular fibrillation (VF), requiring two defibrillation shocks (DC 2x150 J). During that hospitalization, coronary angiography revealed normal findings, but the patient declined the implantation of an implantable cardioverter-defibrillator (ICD). Unfortunately, there was no record of regular cardiology follow-up. This year, the patient was referred to our center following repeated out-of-hospital cardiorespiratory arrests due to VF, each successfully resuscitated (DC 1x 150 J). Upon admission, the patient was unconscious, unresponsive, comatose, and required mechanical ventilation in synchronized intermittent mandatory ventilation mode, although he remained hemodynamically stable. On the second day of hospitalization, the patient demonstrated improved respiratory function and was successfully weaned from the ventilator. Subsequently, he was extubated. Heteroanamnestically, it was noticed that the patient had a history of anabolic and alkaloid substance use. However, toxicology screening upon admission yielded negative results. A psychiatric consultation was scheduled, and the patient consented to undergo surgery on the 9th day of hospitalization under general anesthesia. During this procedure, a subcutaneous cardioverter defibrillator (S-ICD) was implanted. The intervention proceeded without complications, and a defibrillation test confirmed the proper functioning of the S-ICD. During the hospital stay, a complication emerged in the form of a second-degree decubitus ulcer on the right heel. Following evaluation by a plastic surgeon, the patient was discharged with recommendations for Aquacel dressings and anti-decubitus measures, with the expectation of continued home care.

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LITERATURE

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