

**PP21 AMPHETAMINE-INDUCED
CARDIOTOXICITY IN A YOUNG
MALE: A RARE CASE
PRESENTATION**

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INTRODUCTION

Amphetamine-associated cardiotoxicity is rarely reported in medical literature. We reported a case of acute amphetamine toxicity presenting with near fatal cardiopulmonary complication.

CASE DESCRIPTION

An otherwise healthy 20-year-old male was referred to us for fast atrial fibrillation (AF) secondary to acute coronary syndrome. He was first seen in a private facility around 4.00 p.m with a temperature of 38.6°C and a heart rate of 190 beats/minute, with electrocardiogram (ECG) showing AF. He was otherwise normotensive with good pulse volume & peripheral oxygen saturation under room air was 98%. He was given antipyretics, dual antiplatelet therapy and intravenous digoxin before being referred to us. Upon assessment in our facility, he appeared tachypnoeic with the respiratory rate of 24 breaths/minute. He was diaphoretic, with dilated pupils bilaterally. Chest examination revealed bibasal crepitation up to midzone. Repeated ECG showed AF with the heart rate of 150 beats/minute and arterial blood gas (ABG) revealed type 1 respiratory failure. A bedside urine drug was performed, positive for amphetamine. Further questioning noted that the patient had ingested amphetamine earlier in the morning and

complained of restlessness with progressive shortness of breath and palpitation. A diagnosis of fast AF in failure secondary Amphetamine intoxication was made. Intravenous midazolam and intravenous frusemide were given with observed clinical recovery and improved arterial oxygenation from serial ABG. Echocardiogram later showed severe mitral regurgitation with biventricle dilatation and an ejection fraction of 59%. He had persistent AF and was later discharged with life-long warfarin.

DISCUSSION

Our case highlights the importance of early detection and diagnosis of amphetamine-induced cardiotoxicity, whereby the judicious use of benzodiazepines and meticulous supportive care form the cornerstone of treatment. Cardiotoxicity from amphetamine may manifest as acute myocardial infarction or necrosis, arrhythmias, cardiomyopathy and acute heart failure. Therefore, patients with low-to-intermediate risk for coronary artery disease presenting with atypical signs and symptoms may benefit from detailed substance abuse history and urine for drug screening.

CONCLUSION

With the rise in amphetamine usage, clinicians should embody a high index of suspicion of amphetamine-associated toxicity. Early diagnosis is key to successful management of such potentially fatal complication.

KEYWORDS

Amphetamine, cardiotoxicity, atrial fibrillation