**‘MY HEART SWITCHING GEAR!’: A CASE REPORT ON VENTRICULAR TACYCARDIAC (VT) STORM SECONDARY TO DIGOXIN TOXICITY**

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INTRODUCTION

Cardiac glycoside, Digoxin has been a stalwart in the field of cardiovascular medicine. Digoxin intoxication can have a fatal outcome, particularly in patients with preexisting cardiac dysfunction2.

CASE DESCRIPTION

A 74 years old male patient walked into the Emergency Department with a chief complaint of dyspnoea accompanied by palpitations. His medical history includes hypertension, diabetes mellitus, dyslipidaemia, congestive heart failure (CCF), and ischemic heart disease (IHD). He is on oral Digoxin 0.25mg daily. He was alert and oriented with blood pressure 139/91mmHg, heart rate of 130-186/min (on cardiac monitoring), and temperature 36.2°C. Cardiac monitor showed ventricular tachycardia. Patient was started on IV Amiodarone 300mg while awaiting digoxin toxicity test results. The patient's TDM digoxin level was 4.02 ng/mL, confirming digoxin toxicity. Patient received 80mg of IV Digifab in two doses. Patient deteriorated hemodynamically and was synchronized cardioverted with 120J, 150J, and 200J, followed by another 200J twice. Patient's heart rate remained at 180-199 beats per minute. Subsequently, patient was treated with IV Lignocaine 60mg followed by infusion of 1mg/min. The patient was transferred to the CCU for further monitoring.

DISCUSSION

Digoxin has a narrow therapeutic window, patients on digoxin are at risk for toxicity.3,4. Approximately 1% of congestive heart failure patients treated with digoxin develop toxicity5. Chronic toxicity of digoxin in patients on long-term digoxin therapy is associated with renal impairment, due to renal elimination 1,4. Symptoms can be wide-ranging and exacerbated by chronic conditions and particularly in elderly6. 2/3 of patients die due to ventricular arrhythmia4. Diagnosis is done by history, clinical findings, ECG, and serum digoxin level4. Prompt identification is followed by administering Fab fragments, which bind specifically to digoxin to neutralize its toxic effects1. The empiric treatment for adults involves administering 10 vials of Fab fragments 1. Optimal care includes hydration, oxygenation, vital signs, cardiac monitoring, and correction of electrolyte imbalances.

CONCLUSION

Digoxin toxicity is diagnosed by combining clinical symptoms with suspected exposure. In elderly patients, adverse outcomes often occur due to resistant arrhythmias and advanced heart block. It is crucial to educate patients correct dose, signs and symptoms of toxicity and need for immediate medical attention in the emergency department.1

**KEYWORDS**

Digoxin, toxicity, arrythmia