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AC029

Adult Cardiology & Clinical Cardiovascular Medicine • Poster Presentation

A FATAL CASE OF DELAYED RITUXIMAB -INDUCED VENTRICULAR TACHYCARDIA AND TAKOTSUBO CARDIOMYOPATHY.

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Stand: POSTER #AC029 | **Venue:** Poster Exhibition Hall & Gallery - Eko Convention Centre |**Online Ref:** https://nigeriancardiacsociety.com/abstracts/AC029

Background Rituximab is a monoclonal antibody widely utilised in haematological malignancies and autoimmune disorders. While acute infusion reactions are well-documented, delayed fatal cardiotoxicity is exceptionally rare and poorly understood. We present a rare case of fatal refractory ventricular tachycardia and concurrent Takotsubo cardiomyopathy one month after a rituximab infusion.

Clinical Case: A 62-year-old female with no prior cardiovascular history was admitted for febrile illness. One month prior, she had completed her first cycle of rituximab + bendamustine therapy for follicular lymphoma. While on admission, she developed sustained monomorphic Ventricular Tachycardia, necessitating emergency cardioversion. Electrocardiogram: Post-cardioversion traces revealed an accelerated idioventricular rhythm. Biomarkers: Troponin T was elevated at 9213 ng/L. Coronary Angiography: Emergent angiogram demonstrated non-obstructive coronary arteries. Echocardiography revealed an impaired Left Ventricular Ejection Fraction (LVEF) of 40% with apical ballooning and basal hyperkinesis consistent with Takotsubo Cardiomyopathy. She was managed conservatively with a beta-blocker and amiodarone infusion. The patient developed refractory ventricular tachycardia and unfortunately had a VT cardiac arrest and died despite resuscitation efforts.

Discussion / Conclusion: This case highlights a critical, delayed presentation of rituximab-induced cardiotoxicity. While the pathophysiology is unclear. Rituximab can induce late-onset cytokine release, autonomic dysfunction and direct myocardial injury; this may trigger catecholamine surges, causing ventricular tachycardia and myocardial stunning. Clinicians should maintain a high index of suspicion for arrhythmias and non-ischemic cardiomyopathy weeks after rituximab administration, even in patients without baseline cardiovascular risk factors.

Keywords: Rituximab, Ventricular tachycardia, Takotsubo cardiomyopathy, cardiotoxicity, Delayed-onset adverse drug reaction, Fatal outcome.