

Control Number: 9

Abstract Category: Clinical Case Challenge in Cardio-Oncology

Title: Grade 4 Infusion Reaction Causing Stress Cardiomyopathy and Cardiac Arrest With Daratumumab: A Rare Case Presentation

ABSTRACT BODY

Background and Purpose

Daratumumab is a monoclonal antibody (mab) used in the treatment of multiple myeloma and targets CD38 that is expressed in myeloma cells. Infusion reactions during the use of daratumumab have been reported, but cardiac adverse events associated with its administration are rare.

Case Description and Outcomes

65 year female with history of paroxysmal atrial fibrillation and multiple myeloma presented to the emergency room with symptoms of facial flushing and dyspnea that occurred acutely while receiving her first dose of daratumumab. On presentation, she was found to have low oxygen saturation and required high flow oxygen. She was treated empirically for an anaphylactic reaction with steroids and norepinephrine and was admitted to the intensive care unit. Her initial electrocardiogram showed atrial fibrillation that degraded to junctional bradycardia. Prior to presentation the patient denied any previous symptoms of difficulty breathing, chest pain, or palpitations. An echocardiogram showed apical akinesis with left ventricular ejection fraction (LVEF) 40%; prior baseline LVEF 55% with no wall motion abnormalities. Given her hypotension and intermittent bradycardia with heart rate range 30-40 beats per minute, she was started on norepinephrine. Four hours after admission, monomorphic ventricular tachycardia resulted in loss of pulse requiring resuscitation and intubation. Emergent coronary angiography did not demonstrate coronary artery disease. Patient improved and was discharged on medical management, which included lisinopril and metoprolol succinate and a wearable defibrillator. Follow-up echocardiogram at 2 weeks after discharge showed normal LVEF and no wall motion abnormalities.

Discussion

The incidence of any grade infusion-related reactions was 40% with the first infusion of daratumumab in clinical trials of monotherapy and combination treatments. Grade 4 infusion reactions were reported in 2/1166 (0.2%) of patients¹. There are no previous reports of stress cardiomyopathy or arrhythmias due to daratumumab. This case represents a potential life threatening adverse cardiac event for which cardiologists and cardio-oncologists need to be prepared to embark on potential lifesaving management.

References

1. Janssen. DARZALEX® Daratumumab Product Information Available from: http://www.janssen.com/australia/sites/www_janssen_com_australia/files/prod_files/live/darzalex_pi.pdf