A MESS OF A DRESS: MEDICAL THERAPIES AFTER DES PLACEMENT IN THE SETTING OF CLOPIDOGREL INDUCED DRESS

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Category: Case Vignettes

Introduction: Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) is a type IV hypersensitivity reaction with clinical features of fever, truncal macular erythema rash, lymphadenopathy, hepatic involvement, and peripheral eosinophilia [1] [2]. We present a case of DRESS from clopidogrel use after drug-eluting stent (DES) placement and discuss post-discharge antiplatelet management.

Case: A 67-year-old female presented 5 weeks prior for ST-elevation myocardial infarction (STEMI), left ventricular thrombus, and ischemic cardiomyopathy with ejection fraction of 45%. During that admission, she required DES placement and started aspirin, clopidogrel, warfarin, metoprolol, atorvastatin, and lisinopril. About 4 weeks post STEMI, she returned with new-onset pale stools, dark urine, fever (with Tmax of 39.4°C), INR of 16.6, and elevated liver function tests (LFTs). Physical examination yielded scleral icterus, tenderness of the right upper quadrant (RUQ), and a fine, nonpruritic, pink, lacey, bodily rash that was hyperdominant over the sternum which spread to her arms and legs.

Lab work yielded leukocytes of $10.5x10^3$/μL, hemoglobin of 14g/dL, absolute eosinophil count of $2.5x10^3$/μL, prothrombin time of 170.1s, INR 17.1, AST of 125 U/L, ALT of 274 U/L, and ALP of 1411 U/L, total bilirubin of 4.5 mg/dL with direct bilirubin of 3.6 mg/dL, troponin of 0.05 ng/mL, ferritin of 551 ng/mL, and 20-25 RBC/hpf in the urinalysis. BUN, creatinine, acetaminophen level, and acute hepatitis panel were unremarkable. A RUQ ultrasound demonstrated a heterogeneously echogenic liver and a decompressed gallbladder with no evidence of acute cholecystitis or biliary dilatation.

Given concern for DRESS with hepatic involvement leading to elevated INR, the patient was administered 5 mg vitamin K, while clopidogrel and atorvastatin were held. The patient had progressive resolution of rash, eosinophilia, and decrease in LFTs. Dermatology noted that the patient met multiple criteria for DRESS based on Bocquet's criteria; biopsy was not required for diagnosis. Cardiology was consulted for management of LV thrombus and antiplatelet therapy given recent DES. After bridging to warfarin with heparin with a therapeutic INR, the patient continued aspirin, metoprolol, warfarin and switched to losartan. Atorvastatin was held given the hepatic injury.

Discussion: Clopidogrel induced DRESS is a rare complication after DES, especially in someone requiring anticoagulation. Given clopidogrel's short half-life, it was felt that the DRESS resolution was faster than other causative agents [1] [4]. This case's challenge was how to manage dual antiplatelet therapy (DAPT) in the setting of recent DES placement as most experts recommend at least a year of therapy. For patients needing anticoagulation, the WOEST trial argues clopidogrel alone reduces bleeding risk compared to DAPT while ISAR-TRIPLE argues triple drug therapy may only be needed for 6 weeks [3] [5]. Given these data, aspirin and warfarin therapy would be adequate for our patient. Since warfarin offers some thrombotic protection against the stent, one may argue that this may be a therapeutic option for those who cannot tolerate thienopyridine agents and develop DRESS.

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