Atorvastatin

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DRESS syndrome: case report

A 50-year-old woman developed DRESS syndrome during treatment with atorvastatin for spontaneous coronary artery dissection with diffuse coronary ectasia.

The woman, who had a past medical history of generalised anxiety disorder, presented to the emergency department with retrosternal chest pain for 1 day. Her other medications included aspirin [acetylsalicylic acid], ramipril and citalopram. Investigation detected ST segment changes suggestive of non-ST elevation myocardial infarction (NSTEMI), and type 3 spontaneous coronary artery dissection with diffuse coronary ectasia and preserved left ventricular ejection fraction. She was treated conservatively with atorvastatin [*route not stated*] 80mg daily, along with aspirin and ramipril. She was discharged 2 days later. Twenty days later, she presented to the emergency department with a 4 day history of fevers and bilateral flank pain, which was non-responsive to unspecified NSAIDs. Laboratory investigations showed leucocytosis, normal eosinophils and increased liver enzyme levels. Urinalysis revealed pyuria and trace ketones without nitrites. With the suspicion of pyelonephritis, she was treated with ceftriaxone and discharged with planned follow up. Despite this, the fevers, abdominal pain, lower limb weakness, malaise and myalgias persisted. Therefore, 2 days later, she presented again. She was admitted with a diagnosis of fever of unknown origin. Upon admission, leukocytosis was noted, and further increase in eosinophils and liver enzyme levels was also noted. An abdominal ultrasound detected borderline thickening of the gallbladder, but no evidence of infection was noted. Blood cultures were found to be negative for infectious aetiology. She tested negative for COVID-19. Cardiorespiratory examination was normal except a low jugular venous pressure. Abdominal examination was normal. Skin and joint examination were also normal.

The woman was empirically treated with metronidazole and ceftriaxone, followed by piperacillin/tazobactam. Serology testing for hepatitis A, B and C, and cytomegalovirus and Epstein-Barr virus were negative. She tested negative for antinuclear antibody, rheumatoid factor, anti-neutrophil cytoplasmic antibody, mitochondrial antibody and smooth muscle antibody. At that time, increased eosinophil levels raised a suspicion of a drug reaction causing her hepatitis as opposed to sepsis. Owing to her lack of response to antibiotics and increasing eosinophils, a possibility of drug-induced liver injury with eosinophilia or DRESS syndrome secondary to atorvastatin was suspected. Based on the RegiSCAR diagnostic criteria (Score 4), she was diagnosed with a 'probable' atorvastatin-induced DRESS syndrome. Therefore, all the antibiotics (ceftriaxone and metronidazole) and atorvastatin were stopped. Consequently, her liver enzymes levels started to decrease, and her symptoms improved. Two days later, she was discharged in stable condition. Three weeks after discharge, eosinophils and liver function tests were found to be normalized completely. One month after discharge, she was noted to be asymptomatic and remained off atorvastatin.

Zereshkian A, et al. Liver enzyme elevation and eosinophilia with atorvastatin: a case of probable DRESS without cutaneous symptoms. Allergy, Asthma and Clinical Immunology 17: 2021. Available from: URL: http://doi.org/10.1186/s13223-021-00581-y

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