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Meloxicam-associated immune thrombocytopenia

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Description

A 71 year old man presented with a 24 hour history of a pruritic rash on his bilateral lower extremities, petechiae and purpura. 3 days prior he saw an Ophthalmologist for eye dryness and pain. He was prescribed eye drops and Meloxicam. After taking Meloxicam, he developed petechiae and purpura in both lower extremities (Figure 1) prompting him to seek medical care. Admission complete blood count revealed a platelet count of 3,000 (reference range, 142,000-424,000 per microliter). He was started on empiric intravenous immunoglobulin (IVIG) therapy and methylprednisolone for suspected immune thrombocytopenic purpura (ITP). Evaluation for hidden secondary causes of ITP was unremarkable: comprehensive metabolic panel, antinuclear antibody, cytoplasmic antineutrophil cytoplasmic antibodies, perinuclear anti neutrophil cytoplasmic antibodies, Hepatitis panel, HIV 1 & 2, Helicobacter pylori, urinary toxicology test, Vitamin B12 level, rheumatoid factor, double stranded DNA, Epstein Barr virus (EBV) PCR, Varicella Zoster virus (VZV) PCR, Cytomegalovirus PCR, CD5, CD19, CD20, CD23 and antiphospholipid antibodies. Computed tomography with contrast of the abdomen/pelvis, chest and brain were all unremarkable. Hematology consultant recommended a five day course of IVIG 400 mg/kg and methylprednisolone 125 mg IV before discharge. Upon discharge, the platelet count had risen to 15,000. He was prescribed prednisone and instructed to follow-up with hematology.

Discussion

ITP is typically caused by antibodies directed against the platelet glycoprotein IIb/IIIa complex [1]. This results in increased platelet destruction and thrombocytopenia through immune mechanisms and inhibition of platelet release by megakaryocytes [2]. Primary ITP is due to autoimmune mechanisms without a triggering associated condition [3]. Secondary ITP results from several causes including antiphospholipid syndrome, rheumatoid arthritis, HIV, cytomegalovirus, EBV, Hepatitis C, Helicobacter pylori, VZV, chronic lymphocytic leukemia, medications and vaccinations [3]. Although NSAID-induced thrombocytopenia has been reported, only two case reports identify Meloxicam as the offending medication [4,5]. However, neither report included images of physical exam findings.

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Figure 1: Bilateral lower extremities with associated petechiae and purpura induced by Meloxicam use.

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