Spontaneous Hematomas Attributable to Interaction Between Clopidogrel and Desvenlafaxine

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Introduction

Desvenlafaxine is marketed as an effective alternative to Venlafaxine for treatment of Major Depressive Disorder (MDD) with fewer drug-drug interactions. We present a case of coagulopathy manifesting with spontaneous, cutaneous hemorrhages secondary to interaction between Desvenlafaxine and Clopidogrel. This case demonstrates that the reported decreased side effect profile of Desvenlafaxine may not extend to bleeding risk.

Case Report

A 61 year old female presented to Naval Hospital Jacksonville with a one month history of easy bruising, progressing to spontaneous, painful, and diffuse hematomas covering approximately 10% of her body. Her medications included Clopidogrel 75mg and Desvenlafaxine 100mg once daily, as well as Fiornal and Aspirin as needed for headaches. Spontaneous bleeding ceased 24 hours after discontinuing Clopidogrel, Desvenlafaxine, Fiornal and Aspirin. Given her history of difficult to control MDD and Transient Ischemic Attacks (TIA), therapy with both Desvenlafaxine and Clopidogrel was resumed with strict precautions against Aspirin use. Two days after discharge, patient presented to another local Emergency Department with recurrence of hematomas and new TIA symptoms. After evaluation by staff Hematologist, discontinuation of combination therapy, and subsequent monotherapy with Clopidogrel was recommended. This intervention resulted in resolution of symptoms.

Imagery

Photo 1:
Left Anterior Shoulder

Hematoma that developed over course of 30 minutes between initial evaluation by Family Medicine Intern and subsequent evaluation by Family Medicine Attending Physician.

Photo 2:
Left Ventral Forearm

Ecchymosis that developed as a result of gentle pressure applied to forearm during placement of peripheral intravenous catheter.

Photo 3:
Left Mandible

Ecchymosis noted at presentation to Emergency Department.

Photo 4:
Left Flank

Ecchymosis noted at presentation to Emergency Department.

Discussion

Selective Serotonin and Norepinephrine Reuptake Inhibitors (SNRIs) are known to increase the risk of bleeding in patients receiving concurrent anti-platelet therapy. This phenomenon is attributable to decreased platelet serotonin levels, which, combined with standard anti-platelet therapy, can lead to pathologic coagulopathy. Active metabolite formulations of these medications are being developed to reduce side effect profiles and drug-drug interactions. Our case demonstrates that the improved side effect profile of these new formulations may not extend to bleeding risk. Treatment remains discontinuation of the pathologic anti-platelet combination.

Conclusion

The prevalence of serotonin reuptake inhibitors as part of a patient's medication profile is steadily increasing in the United States. Newer SNRI formulations continue to present significant bleeding risks, particularly when combined with anti-platelet therapies. It is important for Primary Care Physicians to recognize the potential for interactions. Patients prescribed serotonin reuptake inhibitor agents and especially patient's in whom combination anti-platelet therapy is initiated warrant regular bleeding risk monitoring in both the acute and long-term setting.

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