Ecchymoses Probably Related to Paroxetine

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ABSTRACT

Paroxetine, one of the selective serotonin reuptake inhibitors (SSRIs), has been found effective in the management of depressive and anxiety disorders. Although SSRIs exhibit a favorable safety profile, some case reports and studies associate SSRIs with an increased risk of bleeding events. Evidence suggests that such bleeding occurs in vulnerable individuals, due to blockade of serotonin reuptake in platelets and subsequent platelet dysfunction. A case of ecchymoses with paroxetine 25 mg/day, and its remission after switching to dothiapin, a tricyclic antidepressant, 25 mg/day is reported for its rare occurrence. A need for cautious use of paroxetine has been stressed.

INTRODUCTION

Selective serotonin reuptake inhibitors (SSRIs) are the most common antidepressants used for managing depressive and anxiety disorders, due to their benign side-effect profile. Serious adverse effects in the form of increasing bleeding tendencies and cerebrovascular accidents have been reported infrequently with SSRIs. Most of these cases have been related to increased chances of gastrointestinal bleeding. There have been few reports of ecchymoses related to SSRI use and few reports of it being related to paroxetine.1-5 Additionally, there have been few reports of serious adverse effects related to bleeding associated with SSRIs.6,7 The authors report another case of paroxetine-associated ecchymoses in a male patient with panic disorder with agoraphobia.
any other systemic illness other than hypertension, which was well controlled on medication. He had no previous history of abnormal bleeding and denied using any other medications, including aspirin, warfarin, or any antiplatelet agents. His hematological investigations, including a complete coagulation profile, were normal. Possibility of paroxetine-related ecchymoses was suggested. Paroxetine was discontinued and the patient was started on dothiapin 25 mg/day increased to 75 mg/day. The patient had been maintaining improvement in panic symptoms without any recurrence of ecchymoses or bleed in any other region for the past 5 months.

DISCUSSION

This case was diagnosed as ecchymoses associated with paroxetine. Because of a temporal relationship to the drug administration, there was no other possible explanation for the same and reasonable clinical response following drug discontinuation. The causality assessment as per the Naranjo Adverse drug scale revealed the side effect was probably related to paroxetine. Atenolol was not responsible for this as it has been generally reported to be protective for bleeding and the patient had tolerated it well, both before and after the ecchymoses, without any untoward reaction.

Regarding pathogenesis, SSRIs like paroxetine act on the serotonin transporter located on the platelet cell membranes. This leads to a depletion of serotonin in the platelets which decreases coagulation and may lead to a bleeding tendency in vulnerable individuals. Additionally, SSRIs have been shown to inhibit nitric oxide synthase, leading to decreased production of nitric oxide from L-arginine. Nitric oxide is required to activate guanylate cyclase for stimulating the formation of cyclic guanosine monophosphate, which acts to relax smooth muscle and regulate platelet aggregation. Hyperserotonemia caused by SSRIs can lead to skin and mucous membrane lesions, such as dilated capillaries or telangiectasia, which may cause ecchymoses without any defect in hemostasis. It is important for clinicians to be aware of increased risk of bleeding with concomitant use of other drugs, especially non-steroid anti-inflammatory drugs and antiplatelet medications, in patients with liver disease and in those undergoing surgery.

CONCLUSION

One must keep the possibility of SSRI-associated bleeds in patients presenting with bleeding. Cautious approach is warranted while starting treatment with SSRIs. Physicians and psychiatrists should always be aware of this possibility while evaluating patients on SSRIs for bleeding problems.

REFERENCES