

Recurrent Ecchymoses Associated with Sertraline, Fluoxetine and Clomipramine in an Adolescent Boy

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ABSTRACT:

Recurrent ecchymoses associated with sertraline, fluoxetine and clomipramine in an adolescent boy

Selective serotonin reuptake inhibitors (SSRIs) are used as a first-line treatment for anxiety disorders and depression in children and adolescents. Generally the somatic side effects of SSRIs are about gastrointestinal system, but they may rarely lead into bleeding complications, including vaginal bleeding, menorrhagia, and ecchymoses. A tricyclic, clomipramine is also associated with abnormal bleeding. Here, we report a case of a 13-year-old adolescent boy with separation anxiety disorder, who manifested with diffuse ecchymoses with sertraline and fluoxetine use and showed resolution after the cessation of each drug, manifested ecchymoses again with clomipramine, and is still on clomipramine treatment, under pediatric hematology control, as the ecchymoses were small and sparse this time. His all laboratory tests were within the normal limits. His ecchymoses were attributed to medications, after excluding other etiologies. The suggested mechanism underlying these adverse effects is that SSRIs limit platelets blood serotonin uptake. Since serotonin cannot be synthesized by platelets, the serotonin concentration within the platelets decreases, leading to an increased risk of abnormal bleeding as one of the functions of serotonin within the platelets is to promote platelet aggregation. To our knowledge, there is not any reports in the literature of abnormal bleeding with 3 different drugs in children or adolescents before. In conclusion, hemorrhagic complications may occur with low doses of SSRIs and although tricyclic antidepressants are recommended in cases with bleeding complications of SSRIs, tricyclics may also cause bleeding. Physicians should be attentive to signs of such possible rare side effects of SSRIs.

Keywords: adolescent, sertraline, fluoxetine, clomipramine, ecchymoses

Journal of Mood Disorders (JMood) 2017;7(3):179-80



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Date of received:

July 12, 2017

Date of acceptance:

August 22, 2017

Declaration of interest:

A.S.A., G.T., F.T.K., E.O.: The authors reported no conflicts of interest related to this article.

INTRODUCTION

Selective serotonin reuptake inhibitors (SSRIs) are used as a first-line treatment for anxiety disorders and depression in children and adolescents. The somatic side effects of SSRIs are generally mild and include nausea, insomnia, sedation and headaches, but they may rarely lead up bleeding complications, such as vaginal bleeding, menorrhagia, and ecchymoses (1,2). Although clomipramine is also associated with abnormal bleeding (3), to date, to the best of our knowledge, there has been no cases of abnormal bleeding reported in children following use of it. Here, we report a case of a 13-year-old adolescent boy who manifested

diffuse ecchymoses with two SSRIs (sertraline and fluoxetine) and showed recovery after the cessation of each drug, manifested ecchymoses again with a tricyclic (clomipramine), and is still on clomipramine treatment, under pediatric hematology follow-up, as the ecchymoses were small and sparse this time.

CASE PRESENTATION

A 13-year-old boy was applied to our outpatient unit with anxiety symptoms. 25 mg/day sertraline treatment was initiated at and symptoms were ameliorated significantly. 12 days later, the patient reported spontaneous ecchymoses

on his arms, legs, and body. His complete bloodcell count, protrombine time, international normalized ratio (INR), activated partial protrombine time, bleeding time and fibrinogen were within the normal limits. Patient did not have a history of any traumas, bleeding disorders or self-injurious behaviors. He did not have any medications except sertraline. Physical examination revealed no abnormalities other than ecchymoses mentioned. His ecchymoses were attributed to sertraline treatment and decreased in 2 weeks after sertraline discontinuation, but his anxiety symptoms increased again, so fluoxetine 10 mg was initiated 2 weeks after the cessation of sertraline. The ecchymoses occurred again in 15 days and healed up after cessation of fluoxetine. Clomipramine 10 mg was initiated this time for anxiety symptoms but the ecchymoses reoccurred in 2 weeks with clomipramine; however, they were small and sparse, compared to those with sertraline and fluoxetine treatment. The patient was consulted to pediatric hematology. As all of his tests were within the normal limits again, pediatric hematology consultant recommended to continue the drug, and he is still on clomipramine treatment. During his follow-up, the ecchymoses faded away, although they did not recover completely.

DISCUSSION

Our patient's ecchymoses were attributed to medications, after excluding other etiologies. The suggested mechanism

underlying these adverse effects is that SRIs limit platelets blood serotonin uptake (4). Since serotonin cannot be synthesized by platelets, the serotonin concentration within the platelets decreases, leading to an increased risk of abnormal bleeding as one of the functions of serotonin within the platelets is to promote platelet aggregation (5). Fluoxetine, paroxetine, sertraline, and clomipramine are more frequently associated with abnormal bleeding as they are the agents with the highest degree of serotonin reuptake inhibition (3).

To the best of our knowledge, there is not any report of abnormal bleeding with 3 different drugs (two SSRIs and a tricyclic antidepressant) in the literature in children or adolescents before. As novel findings, hemorrhagic complications may occur with low doses of sertraline and fluoxetine and although tricyclic antidepressants are recommended in cases with bleeding complications of SSRIs, tricyclics may also cause bleeding. In addition, if the bleeding-related symptoms are mild and bleeding tests are within the normal limits, continuing to use the drug and following up the symptoms may be an option.

CONCLUSIONS

Considering the increase of pediatric prescriptions, physicians should be attentive to signs of such possible rare side effects of SRIs. For preventing a bleeding diathesis, education of the parents and careful follow-up are also imperative.

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