



## Sertraline Induced Bruises in a Patient with Separation Anxiety Disorder and Familial Idiopathic Thrombocytopenic Purpura: A Case Report

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### ABSTRACT

Heterogeneous findings have been reported regarding the effects of anti-depressive drugs over platelet counts. Among antidepressant drugs, Selective Serotonin Reuptake Inhibitors (SSRIs) has been shown to reduce platelet aggregation. We report a patient with reduction in her platelets counts as well as bruising occurrence following three days of receiving sertraline.

In patients with a history of bleeding, ITP or familial ITP, their psychiatric treatment and prescribing SSRI should be done with caution.

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### Introduction

A collection of clinical conditions are predisposed to influence platelet counts including infection, acute stress and certain drugs (1). Platelets are reacted in response to different agonists including serotonin (2). Among antidepressant drugs, Selective Serotonin Reuptake Inhibitors (SSRIs) has been shown to reduce platelet aggregation (3) as well as platelet count (4)

Herein, we report a patient with reduction in her platelet count as well as bruising occurrence following three days of receiving sertraline.

### Case Report

The patient is a 6-year-old girl with a history

of separation anxiety disorder (SAD). A suspicious history of obsessive compulsive disorder and attention deficit were also speculated within psychiatric history taking.

We prescribed sertraline 50 mg once daily



**Figure 1.** Subsequent to three days of receiving Sertraline 50mg sudden unexplained bruising appeared on her inferior limbs.

and after three days of receiving treatment sudden unexplained bruising appeared on her inferior limbs (Figure 1). Her family mentioned no history of recent trauma, infectious disease, active bleeding, neurologic signs or receiving other treatment than sertraline. Idiopathic thrombocytopenic purpura (ITP) appearing on four members of two generations of her family, the common blood test, blood smear and bone marrow examination were used for diagnosis confirmation. Her lab data showed platelet count of 155,000 and 5,800 before and after medication, respectively. She had positive family history of Idiopathic Thrombocytopenic Purpura (ITP). Taking all together, the diagnosis was highly suggestive of familial ITP (5) which could have been triggered by SSRI therapy.

As ITP is usually a self-limiting disorder which follows a benign course and recovers spontaneously after 6-8 weeks (6), we discontinued Sertraline and prescribed Risperidone instead.

### Discussion

Because of the fact that neurons and platelets share the same serotonin (5-hydroxytryptamine, 5-HT) profiles, there might be a possible mechanism that explains depression and antidepressants have an influential role on platelets functions and counts (7). Observations have learned that patients with depression tend to have higher platelet counts (8) while, inhibition of 5-HT re-uptake by SSRI lessens platelet 5-HT levels. This in turn leads to a reduction in release of 5-HT from platelets on activation and aggregation (9) which sometimes could be represented as decrement in platelet count as well as thrombocytopenia (10,11)

It has been shown that patients with pre-existing platelet disorder may suffer bleeding complications other than normal population(12). In this case we had a patient with positive family history of ITP which possibly made the patient prone to SSRI induced thrombocytopenia. As a result, the individuals suffering from underlying platelet disorders or unexplained bruising should be under non-serotonergic therapy preferably. It is important to note that in these cases when SSRI are prescribed, more caution and monitoring should be taken.

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### Conflict of interests

The authors have no conflict of interest.

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