

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

Reza Bidaki<sup>1,2</sup>, Farzaneh Dehghani<sup>1</sup>

1- Department of Psychiatry, Research Center of Addiction and Behavioral Sciences, Shahid Sadoughi University of Medical Sciences, Yazd, Iran.

2- Diabetes Research center, Shahid Sadoughi University of medical sciences, Yazd, Iran

Received: 10 April 2018

Revised: 3 May 2018

Accepted: 30 May 2018

### ARTICLE INFO

Corresponding author:  
Farzaneh Dehghani

Email:  
[dehghanifarzane@yahoo.com](mailto:dehghanifarzane@yahoo.com)

Keywords:  
Idiopathic  
Thrombocytopenic  
Purpura (ITP) Sertraline;  
Bruising

### 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.

**Citation:** Bidaki R, Dehghani F. Sertraline Induced Bruises in a Patient with Separation Anxiety Disorder and Familial Idiopathic Thrombocytopenic Purpura: A Case Report. Case Rep Clin Pract 2018; 3(2): 42-43.

### 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.

### Acknowledgments

We appreciate the patient and her parents joining our study.

### Conflict of interests

The authors have no conflict of interest.

### References

1. Lederbogen F, Hörer E, Hellweg R, Heuser I, Deuschle M. Platelet counts in depressed patients treated with amitriptyline or paroxetine. *Eur Psychiatry*. 2003;18(2):89–91.
2. Platelet actuation. *Blood Rev* [Internet]. Churchill Livingstone. 1995 Sep 1;9(3):143–56.
3. Decreased serotonin content and reduced agonist-induced aggregation in platelets of patients chronically medicated with SSRI drugs. *J Affect Disord*. 2012 Jan 1;136(1–299–103.
4. Song HR, Jung YE, Wang HR, Woo YS, Jun TY, Bahk WM. Platelet count alterations associated with escitalopram, venlafaxine and bupropion in depressive patients. *Psychiatry Clin Neurosci*. 2012 Aug 6;66(5):457–9.
5. Rischewski JR, Imbach P, Paulussen M, Kühne T. Idiopathic thrombocytopenic purpura (ITP): Is there a genetic predisposition? *Pediatr Blood Cancer*. 2006 Oct 15;47(S5):678–80.
6. Provan D, Newland AC. Current Management of Primary Immune Thrombocytopenia. *Adv Ther*. 2015 Oct;32(10):875–87.
7. Nemeroff CB, Musselman DL. Are platelets the link between depression and ischemic heart disease? *Am Heart J* 2000 Oct;140(4 Suppl):57–62.
8. Musselman DL, Marzec UM, Manatunga A, Penna S, Reemsnyder A, Knight BT, et al. Platelet reactivity in depressed patients treated with paroxetine: preliminary findings. *Arch Gen Psychiatry*. 2000 Sep;57(9):875–82.
9. Halperin D, Reber G. Influence of antidepressants on hemostasis. *Dialogues Clin Neurosci*. 2007;9(1):47–59.
10. Mazaira S. Haematological adverse effects caused by psychiatric drugs. *Vertex*. 2008; 19(82):378–86.
11. Andersohn F, Konzen C, Bronder E, Klimpel A, Garbe E. Citalopram-Induced Bleeding Due to Severe Thrombocytopenia. *Psychosomatics*. 2009 May;50(3):297–8.
12. Pai VB, Kelly MW. Bruising Associated with the Use of Fluoxetine. *Ann Pharmacother*. 1996 Jul 4; 30(7–8):786–8.