ENDOMETRIOSIS AND SELECTIVE SEROTONIN REUPTAKE INHIBITORS (SSRIs) PRESCRIPTION

C. Spínola¹, L. Santana¹, D. Neto², J. Gago^{1,3}

¹Centro Hospitalar Lisboa Ocidental, Psychiatry and Mental Health, Lisbon, Portugal.

²Serviço de Saúde Região Autónoma da Madeira, Psychiatry, Funchal, Portugal.

³NOVA Medical School, Lisbon, Portugal

Objectives

We report a case of intermenstrual bleeding associated with SSRIs and a brief literature review.

Background and Aims

Antidepressants can influence blood serotonin levels, and consequently can increase the risk of abnormal bleeding. It has been established that menstrual complaints are more common among women taking antidepressants.¹ However, the underlying mechanism is still unknown. Our aim is to report an association between abnormal uterine bleeding after SSRI prescription in a woman with endometriosis.

Materials and Methods

Clinical information was extracted from the patient's clinical record. Inform consent was obtained. In addition, we searched Pubmed^R database with the terms "SSRIs", "menstruation disorders", "endometriosis", "paroxetine" and "abnormal bleeding". Five articles published between 2004 and 2019 were selected.

Results

A 43 year-old woman went to a psychiatric evaluation referring **depressive symptoms and anxiety**. She had a comorbid diagnosis of **endometriosis**, but her menstrual cycle was **stable** on oral contraceptive pill for years. No other medical conditions were identified.

As this was not the first depressive episode, she was immediately prescribed paroxetine 20mg/day.

Partial response

Paroxetine
Titrated to 40mg/day
after 3 weeks

After **one week on paroxetine 40mg** daily, she developed a daily **intermenstrual bleeding** and abdominal pain. She went to gynaecologic evaluation, who concluded that the physical examination and histologic evaluation of an endometrial sample were normal.

One week after **paroxetine cessation** the **bleeding stopped**.

A **switch to bupropion** titrated up to 300mg/day was associated with an improvement of the depressive symptoms without **menstrual complaints**.

Platelets release serotonin in response to vascular injury, what triggers vasoconstriction and platelet aggregation, resulting in hemostasis. **SSRIs inhibit uptake of serotonin into platelets**; because platelets do not synthesize serotonin, the **SSRI effect** results in **serotonin depletion and reduced efficiency of hemostasis**.²

Risk factors for antidepressant-induced menstruation disorders are still unknown. According to Uguz et al (2012), the highest frequency of menstrual disturbances was observed with the use of paroxetine, sertraline, venlafaxine, and especially their combination with mirtazapine.¹ Antidepressants with a **high degree of inhibition of serotonin reuptake** were associated with a 2.6-fold **increased risk of bleeding events** compared with antidepressants with a low degree of serotonin reuptake inhibition.³ The **first 3 months** following antidepressant administration seem to be the **high-risk period** for menstruation disorders.¹

Conclusions

The literature about this possible SSRI side effect is sparse. Clinicians should carefully interrogate and inform women about menstrual-related side effects when prescribing these antidepressants.

References

1. Uguz F, Sahingoz M, Kose SA, Ozbebit O, Sengul C, Selvi Y, et al. Antidepressants and menstruation disorders in women: a cross-sectional study in three centers. Gen Hosp Psychiatry 2012;34(5):529–33
2. Andrade C, Sandarsh S, Chethan KB, et al. Serotonin reuptake inhibitor antidepressants and abnormal bleeding: a review for clinicians and a reconsideration of mechanisms. J Clin Psychiatry 2010;71(12):1565–75.
3. Welmoed E. E. Meijer et al. Association of Risk of Abnormal Bleeding With Degree of Serotonin Reuptake Inhibition by Antidepressants. Arch Intern Med. 2004;164:2367–2370
4. Durmaz O, Çelik S, Vaginal bleeding associated with antidepressants, Int J Gynecol Obstet (2015) .
5. Yuet WC., et al. Selective Serotonin Reuptake Inhibitor Use and Risk of Gastrointestinal and Intracranial Bleeding. J Am Osteopath Assoc. 2019;119(2):102–111 Ug