Ecchymosis Due to Sertraline Use: A Case Report

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ÖZET:
Sertralin kullanımına bağlı ekimoz: Bir olgu sunumu

Sertralin düşük yan etki profili nedeniyle sık kullanılan bir antidepresandır. Sertraline bağlı hematolojik yan etkiler nadirdir. Burada sertralin kullanımı sonrasında sol sırt bölgesinde yaygın ekimotik lezyon gelişmesi üzerine acil servise başvuran olgu sunularak literatür gözden geçirilmiştir.

Anahtar sözcükler: Sertralin, ekimoz, kanama, yan etki

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ABSTRACT:
Ecchymosis due to sertraline use: a case report

Sertraline is a widely used antidepressant due to its low adverse effect profile. Hematological adverse effects related to sertraline are uncommon. This report includes a case which presented to an emergency department with a large ecchymotic lesion on the left flank due to sertraline use and a review of the relevant literature.

Key words: Sertraline, ecchymosis, bleeding, adverse effect

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INTRODUCTION

Sertraline is an antidepressant in the selective serotonin reuptake inhibitor (SSRI) group that is widely used in the treatment of several psychiatric disorders. It has a low adverse effect profile (1). Hematological adverse effects related to sertraline are uncommon; reported cases presented with vaginal bleeding, epistaxis, purpura, hematuria, and rectal bleeding in decreasing order of frequency (1-3). This report includes a case that presented to an emergency department with a large ecchymotic lesion on the left flank region possibly due to sertraline use and a review of the relevant literature.

CASE

A 62-year old male patient presented to the emergency department with malaise, pain, and ecchymosis on the left side of his body. He had been prescribed sertraline 50 mg/day one month ago by a psychiatrist, whom he consulted for loss of appetite, nervousness, loss of libido, and sleep disturbances. He experienced acute pain and a large ecchymosis in his left flank region in the third week of treatment. He did not recall any trauma that could have caused the lesion. He had diabetes mellitus and had been using insulin for 12 years. He was particularly questioned about insulin injection(s) into his abdomen. He stated that he usually preferred the upper and lower extremities for injection and denied any insulin injection close to the region where the lesion appeared. He had no history of a bleeding disorder or an hematological disease and used no drug other than insulin and sertraline, which he had been using for the last month. He had no history of vitamin or herbal supplement use. He had no signs and symptoms that would signify an alternate diagnosis such as infection, malignancy, or vasculitis that might cause ecchymosis. In his physical examination, blood pressure was 145/90 mmHg, pulse was 73 beat/min, temperature was 36°C, respiration rate was 14/min. An ecchymotic lesion was observed on his left flank region which measured 15x30 cm and extended to the anterior abdominal wall. There was no other site of ecchymosis, petechiae, or purpura. No muscle pain or tenderness was noted. Examination of other organ systems revealed no

other pathology. Laboratory results were as follows: Hb: 15.2 g/dl, Hct: 43.7%, WBC: 8700/mm^3, Plt: 258000/mm^3, MPV: 7.3 μm^3, Urea: 18 mg/dl, Creatinine: 0.7 mg/dl, Na: 140.6 mEq/l, K: 3.82 mEq/l, AST: 38 U/L, ALT: 37 U/L, Amylase: 62 U/L, INR: 1.04, aPTT: 32 seconds, bleeding time (Ivy method): 4 minutes (2-7 min.). No abnormality was detected inan abdominopelvic ultrasonogram. Following cessation of sertraline treatment the ecchymotic lesion disappeared within 4 weeks at follow-up.

DISCUSSION

Lack of a history of trauma, or drug use other than sertraline and no abnormality in hematological tests that would explain the lesion, and improvement of the lesion after cessation of sertraline lead us to believe that the lesion might be related to sertraline use. The most comprehensive data on hematological adverse effects of the SSRIs in the literature are described in Australian drug adverse effect reports (4). Purpura and bruising due to sertraline use was observed in 16 patients, but these adverse effects were more common with paroxetine and fluoxetine. Lack of detailed clinical information, such as the size of the lesions, use of concomitant drugs, and time to occurrence of the adverse effect make it impossible to make any comparisons.

Other than this short report, we have not encountered any other case of sertraline-related ecchymosis in the literature.,but there are two cases that developed ecchymosis due to fluoxetine, which is also a SSRI. One of these cases was reported by Mırsal et al., a 23 year old female who developed ecchymosis in the 8th week of treatment predominantly on her thigh and leg. Despite the ecchymosis, she had continued the treatment for 2 months until her depressive symptoms resolved. The ecchymosis completely disappeared four weeks after cessation of the drug. The patient developed ecchymosis when she started to use fluoxetine again (5).

The other case, reported by Fountoulakis et al. was a 28 years old female who had been diagnosed with major depression based on the DSM-IV and fluoxetine 20 mg/day was started and increased to 40 mg/day 3 weeks later. After about a week she developed seven ecchymoses in the inner surface of both thighs. Treatment was changed to sertraline. Her depressive symptoms resolved within the next 4 weeks and the ecchymoses gradually disappeared about 6 weeks later while she was still on sertraline treatment (6). This finding suggest that SSRIs do not have the same mechanism of action for their side effects on the hematological system.

Other than ecchymosis, several cases of sertraline-related hemorrhage including epistaxis, vaginal bleeding, gastrointestinal bleeding, rectal bleeding and hematuria have been reported in the literature (7-8).

Hematological adverse effects of SSRI drugs are attributed to their effects on peripheral serotonin. Peripheral serotonin has an important role in platelet aggregation and regulation of vascular tonus. SSRIs increase central nervous system serotonin while reducing the serotonin within the platelets (which reduces the aggregability of the platelets). More than 99% of the serotonin in the body is stored within platelets. Serotonin released from platelets is known to play a role in mediating the haemostatic response to vascular damage and promoting vascular constriction and platelet aggregation. The SSRIs inhibit the reuptake of serotonin into platelets, depleting platelet serotonin stores, and reducing platelet aggregability. Continued use of SSRIs decreases platelet serotonin stores and predisposes patients with mild underlying platelet disorders to SSRI-induced bruising or bleeding. Such patients have impaired platelet aggregation, prolonged bleeding time (BT), increased prothrombin time (PT), and increased partial thromboplastin. Concomitant use of nonsteroidal anti-inflammatory drugs (e.g., aspirin, ibuprofen) may aggravate the bleeding tendency (9-11). In our case, we did not detect any abnormality in hematological tests. This made us think that, at least for our case, sertraline showed its main effect on platelet aggregation.

What could be the next choice for the treatment of psychiatric symptoms of our patient that developed ecchymosis due to sertraline? Limited literature available supports the use of another SSRI. In a similar case, Fountalakis et al. have preferred sertraline over fluoxetine which caused ecchymosis (6). Although a SNRI may be used as an alternative, it should be remembered that ecchymosis due to venlafaxine, which is a SNRI, has also been reported (12). This decision must be made on an individual basis. For instance, in the case of an elderly patient with a sleep disorder and sexual side effects, considering the recurrence of hematological side effects

of SSRI and SNRIs, tradazone, which has less hematological and sexual side effects, but positive effects on sleep may be preferred (13).

There are some limitations of this report. We have not performed additional hematological evaluations for inherited disorders such as Von Willebrand Disease. We would have had more definitive evidence, if there had been a laboratory abnormality that reversed after withdrawal of the drug or if we had re-exposed the patient to sertraline and he had developed ecchymosis again. Despite these limitations, we consider that the available data and findings suggest the ecchymosis was associated with sertraline use.

CONCLUSION

It is important to keep SSRI drugs in mind as a possible cause in patients who present to emergency departments for ecchymosis or any kind of hemorrhage. Also clinicians should be careful in prescribing SSRIs and monitoring side effects in patients with higher risk of hemorrhage.

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