A Case of Fluoxetine-Induced Lower Extremity Ecchymosis

To the Editor: Fluoxetine is a selective serotonin reuptake inhibitor (SSRI) mainly prescribed in the treatment of depression, anxiety disorders, bulimia nervosa, and premenstrual syndrome.[1] Although SSRIs have been reported to potentially be associated with an increased risk of bleeding,[2] fluoxetine-induced ecchymosis is rare, with few cases in the current literature.[3–6] We report the case of a female patient who manifested lower-extremity ecchymosis related to fluoxetine use.

Case report. Ms A is a 28-year-old married woman. She presented to our outpatient clinic with complaints of loss of interest in daily activities, depressed mood, fatigue, loss of concentration, and hypersomnia that started 4 months ago. She had no personal or family history of psychiatric disorders and was taking no medications. She was diagnosed with major depressive disorder according to *DSM-5* criteria and treated with fluoxetine 20 mg/d. Five weeks later, she reported ecchymosis on her legs. Her hematologic screening tests were within normal limits. Her treatment was changed to bupropion 150 mg/d. After 4 weeks on bupropion, her depressive symptoms remitted and the ecchymosis regressed. However, because of bupropion's removal from the market in Turkey, bupropion was stopped, and fluoxetine 20 mg/d was restarted. The purpose of restarting this medication was to take advantage of fluoxetine's 5-HT_{2C} antagonism on the prefrontal cortex[1] to treat her main complaint of loss of concentration. Five weeks later, Ms A presented to a dermatology clinic and reported ecchymosis on her legs. She was diagnosed with drug-induced ecchymosis (*DSM-5*). Her treatment was changed to sertraline 50 mg/d. After 4 weeks, her depressive symptoms resolved and ecchymosis disappeared.

Ms A's physical examination and laboratory analysis results, which were within normal limits, the appearance of ecchymosis during both trials of fluoxetine, and the regression of ecchymosis after switching from fluoxetine to another drug suggest that the ecchymosis was related to fluoxetine use.

Numerous mechanisms are thought to contribute to abnormal bleeding effect associated with SSRIs: blockade of intraplatelet calcium mobilization, inhibition of nitric oxide synthase, depletion of intracellular serotonin, reduced secretion of platelet factors in response to chemical stimuli, leading to a loss of aggregation potential, and decreased expression of many membrane receptors involved in platelet activation.[7]

Awareness of fluoxetine-associated abnormal bleeding is important for the recognition and management of these side effects. In addition, clinicians should pay close attention when prescribing fluoxetine for patients with bleeding disorders and monitor drug interactions that can cause bleeding.

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