Dysmorphic Delusion and Olanzapine-Induced Postpartum Dermatosis in a Case of Schizophrenia

Sir,

Olanzapine has been used widely to control psychotic symptoms in patients with schizophrenia, bipolar disorder, and aggression associated with other psychiatric disorders. Weight gain and hyperglycemia are the most serious side effects of olanzapine in long-term treatment.[1] Olanzapine is one of the preferred drugs among atypical antipsychotics for short-term use.[2] However, we encountered an acute dermatological adverse drug reaction (ADR) of olanzapine in a patient with dysmorphic delusion.

CASE REPORT

A 25-year-old lady, Mrs. G, P_1L_1, 6 months postpartum, presented with a 1-year history of hallucinatory behavior, hostility toward family members, disorganized behavior, and poor bonding with a physically healthy

infant. During 6 months of the postpartum period, she became socially aloof, muttering to self, not sleeping at nights, and holding a false belief that her face has turned ugly, in the absence of any visible facial skin changes. On mental status examination, poor cooperation, difficulty in establishing rapport, poverty of speech, second person auditory hallucinations, which patient refused to elaborate, and dysmorphic delusion were established. She was diagnosed with undifferentiated schizophrenia and treated by a psychiatrist with risperidone 6 mg/day for 3 months, without much improvement. When she came to our hospital, considering a failed response to treatment, risperidone was cross tapered with oral olanzapine up to 20 mg per day over 1 week. During 3 weeks of inpatient care, an improvement was noted in hallucinations, self-care, and bonding with the infant.

However, there was development of non-pruritic, non-erythematous, self-limiting papulopustular (acneiform) skin eruptions over the face, which worsened with increasing dosage of olanzapine. Despite reduction in other psychotic symptoms, the patient continued to hold the dysmorphic delusion that her face is ugly, and unfortunately, it appeared self-validating because of the recent development of acneiform eruptions.

There was no history of self-mutilation, skin excoriation, hair picking, or exposure to known allergens, and hence, diagnoses of self-induced dermatosis (acne excoriation) and hypersensitivity reaction were ruled out. Her blood glucose level, autoimmune workup, thyroid, liver and renal functions were found to be within normal limits. Her menstrual cycles were regular.

The diagnosis of olanzapine-induced acneiform dermatosis was considered after a dermatology consultation. A cognitive behavioral therapy approach was used to tackle dysmorphic delusion. The patient was reassured about probable cosmetic adverse effects of olanzapine. Her belief was shaken slowly through a course of five therapy sessions targeting overgeneralization as a main cognitive distortion. This was accompanied by disproving her beliefs by comparing pictures and mirror reflections, reassuring about the reversibility of acneform eruptions, and video feedback with the infant. Olanzapine was continued after risk-benefit analysis and shared decision-making with patient and caregiver.

DISCUSSION

Some of the common facial dermatological conditions during the postpartum period include dry skin, hormonal acne, spider veins, and post-pregnancy-melasma. Skin eruptions in the perinatal period are considered as dermatoses of pregnancy.[3] A broad group named pruritic urticarial papules and plaques of pregnancy and polymorphic eruptions of pregnancy are two distinct conditions that constitute 0.5% of total cases.[4] However, till now, only six case reports have described dermatoses during the post-partum period,[5] which include lesions that are pruritic, erythematous, and inflammatory in nature. The earlier reports also highlight facial sparing and occurrence during the immediate post-partum period.[6]

In contrast, acneiform dermatosis in our case was non-pruritic, non-erythematous, restricted to facial skin, and developed around the sixth month postpartum. None of the previous reports had described the postpartum onset of acneiform dermatoses on exposure to olanzapine. Skin rash,[7] pustular eruptions,[8] hypersensitivity syndrome,[9] acneform eruptions,[7] and pellagroid skin eruptions have been reported with oral olanzapine preparation[10] in non-postpartum cases. Pathological findings have confirmed the nature of the skin eruption after olanzapine exposure[11] in non-postpartum cases.There is no previous case report describing postpartum acneiform dermatosis with olanzapine exposure in schizophrenia. This case is interesting because the coincidental appearance of acneiform facial eruptions after treatment with olanzapine seemed to reinforce and consolidate the earlier dysmorphic delusion held by the patient.

The exact mechanism of olanzapine causing skin eruptions is sparsely studied. It is hypothesized that olanzapine acts through neurotrophic factors which work in sync with the neurohormonal system. In addition, it is possible that olanzapine alters the androgen sensitivity of end-organ sebaceous system, which is responsible for sebum formation and acneiform eruptions. In future, we need to study the exact mechanism of this adverse effect as olanzapine being one of the state of the art atypical antipsychotics, the cosmetic side effects should not limit its use. Moreover, such drug-induced dermatological adverse effect of antipsychotics can be challenging in patients with dysmorphic facial delusions.[12] Points in favor of our diagnosis were previous conclusive reports of olanzapine-induced dermatoses, the appearance of ADR after the introduction of olanzapine, dose-related severity of dermatosis, and the absence of alternative causes for dermatosis. With a Naranjo Nomogram score of 6, this case highlights acneiform facial dermatosis as a probable ADR of olanzapine.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and

due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest
There are no conflicts of interest.

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