

Case Report

Olanzapine-induced Psoriasis

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ABSTRACT

Olanzapine is a second-generation antipsychotic drug mainly used in the treatment of schizophrenia. It has several side effects including weight gain, hypercholesterolemia, and hyperglycemia, but dermatological side effects are rarely reported. We report a rare case of olanzapine-induced psoriasis.

Key words: Adverse drug reaction, olanzapine, psoriasis


INTRODUCTION

Olanzapine is effectively used in the treatment of schizophrenia and bipolar disorder. It is a serotonin dopamine antagonist, structurally similar to clozapine, and is a thienobenzodiazepine. Olanzapine may have marginal efficacy advantages when compared with some other antipsychotics.^[1] On the other hand, it is also associated with serious side effects including weight gain, lipid elevation, and an increased risk of diabetes.^[1] There have been reports on dermatological side effects such as purpuric rash.^[2]

We report here a case where a patient with psychosis was started on olanzapine and developed a clinical picture of psoriasis without any other comorbidity. This patient was not on any other drugs and did not have any other medical condition.

CASE REPORT

A 42-year-old female, divorced, uneducated, unskilled worker belonging to a nuclear family of low socioeconomic status, accompanied by her mother, presented to the psychiatry outpatient department (OPD) of our hospital with suspiciousness, hearing of voices, and decreased self-care for 2–3 months; after careful history taking and mental status examination, a diagnosis of schizophrenia according to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition was established. The patient was treated on OPD basis, started on tablet olanzapine 5 mg which was subsequently increased to 10 mg on the next follow-up after 10 days. The clinical symptoms were improving. After a month, the patient presented with scaly patches and pustules on the skin which spread over the elbows and back [Figure 1] which had previously gone unnoticed by the patient due to less severity. Other areas affected included shin

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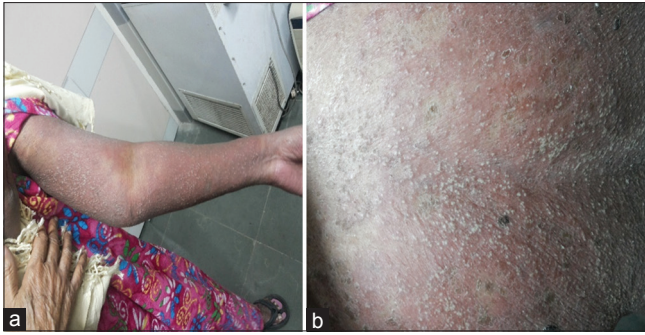


Figure 1: Scaly patches and pustules on (a) the left arm and forearm around elbow (b) on sacral region

of tibia and scalp. The patient reported that the scaly patches were first seen on the elbow, and later on the back, scalp, and legs, the patches were spreading and pustules appeared over a period of 15 days. The patient was not taking any medication other than olanzapine. She did not have a past history of a dermatological condition or any drug or food allergy. There was no family history of the same. A provisional diagnosis of drug-induced rash was considered, and the patient was referred to the dermatology department of our hospital. Blood investigations were not suggestive of eosinophilia, and liver function tests were within normal limits. The dermatology department gave clinical impression of acute pustular psoriasis precipitated secondary to drug, along with a differential of acute generalized exanthematous pustulosis, the diagnosis of psoriasis could not be confirmed as skin biopsy could not be done as the patient did not give consent. A joint decision of tapering the dose of olanzapine was taken. The patient's olanzapine dose was tapered and later shifted to other atypical antipsychotics (risperidone), the scaly patches resolved over the next few 6–8 weeks, and hence a clinical diagnosis of drug-induced psoriasis was confirmed. The patient's relative was psycho-educated and asked to continue anti-psychotics regularly. On follow-up after weeks, the patient remained to be symptomatically better, tablet risperidone was continued, and the rash had completely subsided.

DISCUSSION

Drug-induced psoriasis is where discontinuation of the causative drug stops the further progression of the disease.^[3] True drug-induced psoriasis tends to

occur in a *de novo* fashion in patients with no family or previous history of psoriasis. Mechanism of action can involve both immunological and nonimmunological pathways.^[4] Therapeutic agents can have a causal relationship to psoriasis, with considerable but insufficient data supporting the induction of psoriasis, or occasionally an association with psoriasis. Drugs that appear to have a strong causal relationship with psoriasis are beta-blockers, lithium, synthetic anti-malarial, nonsteroidal anti-inflammatory drugs, and tetracycline.^[3]

On extensive search of literature regarding the incidence of psoriasis in patients treated with olanzapine, we could find few reports suggesting the worsening of existing psoriasis or new-onset psoriasis in patients with a family history of psoriasis.^[5,6] However, the mechanism by which psoriasis may be induced by olanzapine remains unknown. There is a need of close follow-up in patients on olanzapine to watch for dermatological events. Caution must be taken if previous history or family history of psoriasis is present, the potential chances may be negligible but clinicians must be aware of it.

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Conflicts of interest

There are no conflicts of interest.

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