Letter to Editor

Alopecia Areata Monolocularis in Clozapine-induced Hypereosinophilia

INTRODUCTION

Eosinophilia is seen in around 1% in clozapine-treated patients with a benign transient course, and in a few cases it has been reported to be a predictor of subsequent complications like eosinophilic colitis.[1] The prevalence of skin lesions including infections, dermatitis, hyperkeratosis, pilosebaceous disease, androgenic alopecia, xerosis, and stasis, were higher in patients with schizophrenia.[2] To the best of our knowledge alopecia areata as a secondary complication to clozapine-induced hypereosinophilia, has not been reported. Here we report a case of alopecia areata monolocularis in a patient with clozapine-induced hypereosinophilia which developed within 3rd week of initiation of clozapine which warranted its cessation.

CASE

A 38-year-old female with a diagnosis of treatment-resistant schizophrenia paranoid subtype, started on clozapine therapy. Patient's baseline blood counts were total leukocyte count 7500/mm^3, absolute neutrophil count 5190/mm^3, absolute eosinophil count (AEC) 150/mm^3, and rest cell counts within normal range. The patient received an initial dose of 25 mg/day, which was gradually increased to 150 mg/day in 2 weeks. There was a gradual improvement in her psychotic symptoms and her Positive and Negative Syndrome Scale score reduced from 82 to 56. Weekly blood tests showed only rising trend of eosinophil counts which increased from 150/mm^3 to 950/mm^3 in 2 weeks and 2360/mm^3 at the end of 3 weeks. During the course of clozapine treatment, there was no history of fever, itching, generalized rash, respiratory complaints, passage of worms in stools, joint pain, and local or generalized lymph node enlargement. On investigations, the morphology of eosinophils on peripheral blood smear, ova cyst in stool test, thyroid function, chest X-ray, echocardiography, and computerized tomography scan of thorax found to be normal. She was also being monitored for serial serum amylase, serum lipase, creatine kinase-MB which was found to be in normal range. Subsequently, the patient was given a trial of albendazole 400 mg/day for 5 days, but there was no effect on AEC. In view of the same, Clozapine dose was not increased further.

By the end of 3 weeks, there was single patch hair loss [Figure 1]. She was diagnosed with alopecia areata monolocularis in consultation with a dermatologist. Trichoscopic and histopathological studies were done and suggestive of mild eosinophilic infiltrates in peribulbar area. Considering rising trend of AEC and its associated complications, clozapine therapy was withdrawn, which was followed by gradual decrease in AEC to 240/mm^3 in next 3 weeks with no further hair loss. There was hair regrowth reported after around 6-8 weeks of withdrawing clozapine therapy.

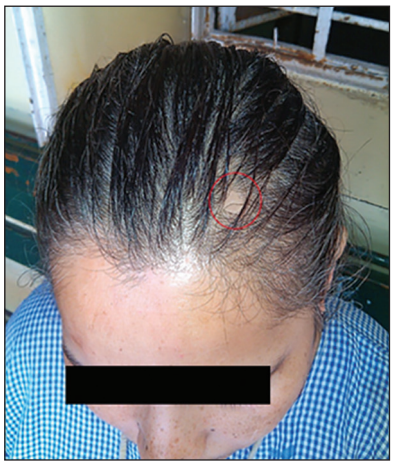

Figure 1: Alopecia areata monocularis

DISCUSSION

Hypereosinophilia is an allergic manifestation of various drugs that usually disappears when the causative drug is discontinued. Alopecia areata monolocularis is a variant called "spot baldness." In most cases, this variant is the beginning phase of this autoimmune disease[3] or may have eosinophilic peribulbar infiltrates.[4] In view of lack of literature support and no clear consensus about exact etiopathogenesis of clozapine-induced eosinophilia and it's dermatologic manifestations, it is difficult to conclude a causal relation, but considering Naranjo adverse drug reaction probability scale[5] score of 7 and previous studies[4] in index case the pathophysiology of Alopecia seems to be related to hypereosinophilic state. This report may be the first case report of clozapine-induced hypereosinophilia developing alopecia areata monolocularis which warranted its withdrawal.

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