Section: Miscellaneous

Case Report

ESCITALOPRAM INDUCED DRESS (DRUG REACTION WITH EOSINOPHILIA AND SYSTEMIC SYMPTOMS) IN A QUADRAGENERIAN: A CASE REPORT

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ABSTRACT

DRESS (Drug Reaction with Eosinophilia and Systemic Symptoms) syndrome is a rare, potentially life-threatening adverse drug reaction with a long latency period. It is characterized by fever, cutaneous eruptions, haematological abnormalities, and multi-organ involvement. Escitalopram, a selective serotonin reuptake inhibitor (SSRI), is an uncommon cause. We report a rare case of Escitalopram induced DRESS in a 45-year-old female with Major Depressive Disorder. Prompt diagnosis, immediate withdrawal of the offending medication and timely corticosteroid therapy resulted in complete recovery.

Keywords: DRESS, Escitalopram, SSRI, Adverse Drug Reaction, RegiSCAR.

INTRODUCTION

Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) syndrome, also known as Drug Induced Hypersensitivity Syndrome (DIHS), is a severe cutaneous adverse drug reaction characterized by delayed onset and multi-organ involvement. Though commonly associated with antiepileptics and antibiotics, rare reports implicate SSRIs like Escitalopram.[1,2] Timely identification and cessation of the causative agent are crucial to avoid significant morbidity and mortality. It is a clinical chameleon often masquerading as infectious, autoimmune, or neoplastic disorders making timely diagnosis both crucial and challenging. Characterized by a constellation of fever, extensive skin eruption, hematologic abnormalities (notably eosinophilia and atypical lymphocytosis), and multi-organ involvement, DRESS presents with a delayed onset, typically 2 to 8 weeks after drug exposure. This delay adds a layer of diagnostic complexity, often leading to initial misattribution of symptoms.[2,4]

The pathogenesis of DRESS is not yet fully elucidated, but current evidence points toward a multifactorial origin. Genetic predispositions, particularly certain HLA haplotypes, immune dysregulation, and viral reactivations especially of human herpesvirus-6 (HHV-6) have been implicated.[4] Aromatic anticonvulsants such as Phenytoin, Carbamazepine, and Phenobarbital are well known offenders, though a wide array of drugs, from antibiotics to Allopurinol, have been reported to incite this syndrome. The unpredictable nature of DRESS and its potentially severe sequelae underscore the importance of clinician vigilance.

Despite growing awareness, data on DRESS syndrome within the Indian population remain sparse, particularly regarding clinical patterns, drug triggers, and outcomes. Through this case report, we aim to contribute to the evolving pharmacovigilance literature by highlighting a unique clinical presentation of DRESS, emphasizing the need for early recognition, prompt withdrawal of the offending medication, and appropriate management to reduce morbidity and mortality.

CASE PRESENTATION

A 45-year-old female presented to the dermatology outpatient department with a 5-day history of fever, pruritic widespread maculopapular rash, and facial puffiness. She had been initiated on Escitalopram 10 mg once daily for Major Depressive disorder two weeks prior. There was no past history of adverse drug reactions.

Figure 1: Facial puffiness and hyperpigmented

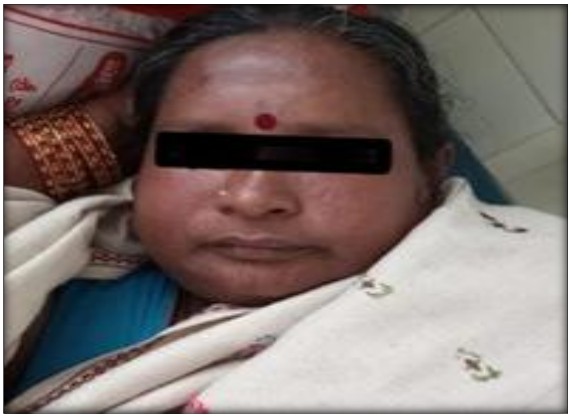

Figure 2: Facial puffiness at rash on presentation

On clinical examination, she had facial and upper limb edema, and palpable cervical lymphadenopathy. Dermatological findings included a widespread erythematous maculopapular rash involving more than 50% of the body surface area.

Laboratory investigations revealed

- Leucocytosis: Total WBC count 14,200/µL
- Eosinophilia: 1,050/µL
- Mildly elevated liver enzymes: ALT 78 IU/L, AST 65 IU/L
- Normal renal function

Serological workup for viral hepatitis, Epstein-Barr Virus (EBV), and Cytomegalovirus (CMV) was negative. The RegiSCAR scoring system yielded a score of 6, confirming a diagnosis of definite DRESS.

Escitalopram was immediately discontinued. The patient was initiated on oral corticosteroids (Prednisolone 1mg/kg/day), antihistamines, and emollient therapy. She showed marked clinical improvement within a week. Liver enzymes normalized by the second week, and skin lesions resolved with desquamation. She was gradually tapered off steroids over 4 weeks. On follow-up, she remained symptom-free and was maintained on Haloperidol 10 mg once daily for her psychiatric condition.

Figure 3: Resolution of facial puffiness

Figure 4: Resolution of hyperpigmented rash post treatment

DISCUSSION

DRESS syndrome is a T-cell mediated Type IV hypersensitivity reaction.[4] Its hallmark features include a delayed onset (2-6 weeks after drug initiation), eosinophilia, systemic symptoms, and potential for severe organ dysfunction. Escitalopram-induced DRESS is extremely rare, with very few cases documented in literature.[5]

In this patient, the absence of alternative etiologies and a temporal relationship with escitalopram initiation supported the diagnosis. The RegiSCAR score provided a structured and validated approach for diagnosis.[3] Corticosteroids remain the

cornerstone of treatment, especially in patients with organ involvement.[6]

Histopathological findings in DRESS may include interface dermatitis, perivascular lymphocytic infiltrate with eosinophils, and epidermal spongiosis, which support the diagnosis and help distinguish it from other drug reactions.[6] Moreover, the application of structured causality assessment tools, like the RegiSCAR algorithm, enhances diagnostic reliability, particularly in resource-limited settings.[3]

Recent studies emphasize the need for tailored treatment protocols and early intervention strategies to reduce systemic complications.[2,5] The unpredictability and varied clinical presentation of DRESS warrant a high index of suspicion among clinicians.

Different diagnostic tools have been employed to predict Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) in patients. While rechallenging with the suspected drug is the standard approach for drug eruptions, it is not appropriate for DRESS due to the associated risk of mortality. Unfortunately, the lymphocyte transformation/activation test lacks standardisation for most medications, is challenging to conduct, has limited sensitivity and specificity, and often yields negative results during acute DRESS episodes.[7]

Del Pozzo-Magaña et al. examined 19 cases of DRESS using the RegiSCAR criteria, which require a minimum of 6 points for diagnosis. Antibiotics (74%) and anticonvulsants (21%) were identified as problematic, while common comorbidities included epilepsy (26%) and hypertension (26%). Drug exposure typically resulted in a skin rash that lasted an average of 3.7 weeks, with an interquartile range of 2.4 to 4.2 weeks. In 95% of the cases, eosinophilia (≥0.7 × 10^9 /L) peaked 10 days after the onset of cutaneous symptoms.[8] In their study of two instances of DRESS syndrome, Mąsior MN et al. observed that diagnosis can be difficult due to the rare nature of the condition and its varied manifestations. To avert fatalities, scenario one involved the prohibition of Pip/Taz and ciprofloxacin. The second scenario imposed a permanent contraindication for allopurinol. Renal dysfunction limits the availability of other pharmacological treatments for asymptomatic hyperuricemia, necessitating lifestyle modifications for patients in case 2.[9] Another report discusses a woman who developed RegiSCAR-classified DRESS while on escitalopram for depression. A cutaneous-mucosal rash, fever, haematological abnormalities (especially eosinophilia), and liver dysfunction were detected. After discontinuing escitalopram and commencing corticosteroids, recovery took three months. She switched antidepressants.[10]

Lifestyle changes may involve dietary adjustments, such as reducing purine intake, enhancing hydration, and participating in regular physical activity to effectively manage their condition. Furthermore, patients should receive education on the significance of monitoring their uric acid levels and recognising the signs of potential flare-ups.

CONCLUSION

This case emphasizes the need for clinical vigilance, even with drugs not commonly associated with DRESS. Escitalopram-induced hypersensitivity, though rare, can lead to significant systemic involvement. Timely diagnosis, discontinuation of the causative drug, and appropriate corticosteroid therapy contributed to the patient's complete recovery.

Ethical Considerations

Written informed consent was obtained from the patient for publication of this case report and institutional ethics committee approval was also obtained.

Conflict of Interest

The authors declare no conflict of interest.

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