

Examining a Case: Carbamazepine-Triggered Drug Reaction with Eosinophilia and Systemic Symptoms

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Abstract:- This case report delves into the manifestation of a drug reaction with eosinophilia and systemic symptoms (DRESS) induced by carbamazepine. patients clinical presentation, diagnostic assessment, and therapeutic interventions are comprehensively detailed. Through this exploration, we aim to contribute valuable insights into the recognition, management, and potential complications associated with carbamazepine-induced DRESS, shedding light on the importance of vigilance and prompt medical intervention in such instances.

I. INTRODUCTION

Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) represents a severe cutaneous adverse drug reaction (SCAR) characterized by rash, fever, adenopathy, hematological abnormalities, and organ involvement. This reaction is primarily linked to the usage of antiepileptic drugs, nonsteroidal anti-inflammatory drugs, etc¹.

II. CASE REPORT



Fig 1: Perinasal pustules



Fig. 2: Multiple perioral pustules



Fig. 3: and Fig. 4: multiple erythematous macules, papules, plaques and wheals 28-year female nurse, case of Generalised tonic-clonic seizures on Levetiracetam - 6 years. Carbamazepine added Jan 2022. About 08 weeks thereafter, she developed Pruritic, maculopapular rash.

O/E: multiple erythematous macules, papules, plaques and wheals - over face, trunk, all extremities. Targetoid lesions - forearms, thighs and legs. Multiple perioral and perinasal pustules. Associated with facial oedema and fever.

There was leucocytosis, peripheral eosinophilia and elevated transaminases.

Histology consistent with DRESS.

Diagnosed as "Definitive" DRESS with a RegiSCAR** Score of 6.



Fig 5: Targetoid lesions

Histopathology:

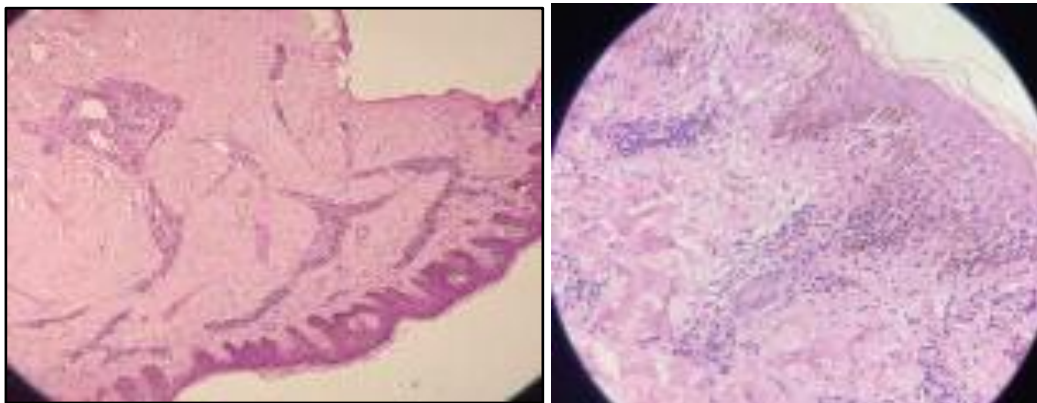


Fig. 6: Epidermis - spongiosis & neutrophilic infiltrate.

Dermoepidermal junction- vacuolar degeneration.
Dermis – perivascular & peri- appendageal LMN .

III. TREATMENT

Managed as in-patient with high dose corticosteroids and supportive treatment. Her condition improved over the next ten days; laboratory abnormalities gradually settled over 15 days. Steroids were tapered gradually after 21 days and withdrawn by 14 weeks.

IV. DISCUSSION

DRESS is a diagnostic challenge given the long interval between the administration of drug and the appearance of symptoms, variable clinical features, and the unpredictable disease progression. The occurrence of DRESS ranges between 1 in 1000 and 1 in 10,000 instances

of drug exposures, with mortality rates between 10% to 40%.

Knowledge of this entity and clinical suspicion is essential to improve the management and prognosis of patients.

This case is presented due to rarity of definitive DRESS (RegiSCAR -6)

REFERENCES

- [1]. Saritha Sasidharanpillai, Aparna Govindan. Drug reaction with Eosinophilia and Systemic Symptoms, chapter 31, . IADVL Textbook of Cutaneous adverse drug reaction. Lalith Kumar Gupta, Abhay Mani Martin. et.al. editors, 1st edition, 2018. p280-281.
- [2]. **RegiSCAR: Registry of Severe Cutaneous Adverse drug Reaction.