PHENOBARBITAL INDUCED STEVEN JOHNSON SYNDROME IN AN EPILEPTIC CHILD: A CASE REPORT

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ABSTRACT
Introduction: Phenobarbital, an antiepileptic agent induced cutaneous adverse reactions including Stevens-Johnson syndrome (SJS), a rare medical emergency. Case presentation: An 18 month old female epileptic Infant with Phenobarbital induced SJS was referred for the management of fever, erosions of lips and mouth, skin lesions of face, trunk and extremities. Conclusion: The patient was managed by withdrawing of Phenobarbital and supportive treatment of the lesions. During the hospital stay, the appearance of normal skin lesions gradually improved, after two weeks of treatment with steroids, antihistamines, local treatment of lesions, and nutritional supplements.

KEYWORDS: Erosions of lips, Stevens-Johnson syndrome, Phenobarbital, extremities.

INTRODUCTION
Phenobarbital after completing 100-years existence in the market is still the most widely prescribed antiepileptic drug (AED), and remains a cost-effective drug of choice for seizures.[1] Its adverse effects range from mild to severe reactions like Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TENS).[2] SJS is an immune complex mediated hypersensitivity reaction characterized by widespread erythematous macules or flat, atypical targetoid lesions with epidermal detachment of <10% body surface area. Advanced cases are often complicated by ocular conjunctivitis or uveitis and symblepharon formation. SJS lesions can be precipitated by viral infections or drugs. The lesions usually develop within one to three weeks of initiation of therapy.[3]

CASE REPORT
An 18 month old female weighing 8 kg’s with Phenobarbital induced SJS was referred to our emergency department due to erosions of lips and mouth. She was on treatment with Phenobarbital for Epilepsy. After 20 days therapy with Phenobarbital, patient has developed Fever, erosions of lips and mouth and skin lesions of face, trunk and extremities, purulent conjunctival discharge, few erythematous papules on palms and soles, Erosions with mucous vaginal discharge. Based on history, clinical examination, and laboratory findings, the child was diagnosed as a case of Phenobarbital induced SJS. After being treated with steroids, antihistamines, local treatment of lesions, and nutritional supplements for two weeks, the patient improved and discharged. On causality assessment using WHO causality scale, association was Probable for the Phenobarbital.[4]

DISCUSSION
SJS is one of the dermatologic conditions that can be potentially fatal. SJS, was first described in 1922, the incidence of SJS associated with drug use was 1.8 per million.[5] SJS/TEN are considered as a spectrum of the same disease; in SJS, the extent of total skin surface involvement is less than 10%; more than 30% skin involvement is termed as TEN, while 10%–30% is designated SJS/TEN overlap syndrome. In both the conditions, there is a development of acute rash with mucocutaneous involvement that is typically associated with vesicles and blisters. In severe cases, there is
extensive necrosis of the epidermis and mucous membrane. Although the exact etiology of SJS/TEN is not fully understood, it is believed to be an immunemediated hypersensitivity reaction in which cytotoxic T lymphocytes play a role in the pathogenesis.[6] In clinical practice, often, these reactions are manifestations of drug-induced hypersensitivity. The etiological factors of SJS can range from viral infections to various pharmacological agents. The commonly associated drugs are antimicrobials (Sulfonamide and other Nonsulfonamide antibiotics such as Aminopenicillins, Cephalosporins, and Quinolones), Anticonvulsants (Carbamazepine, Phenytoin, Phenytoin, and Valproic acid), NSAIDs of the Oxicam type, and allopurinol.[6-8] As stated earlier, Anticonvulsant like Phenobarbital is one of the antiepileptic drug known to cause SJS/TEN. In this case, SJS was due to Phenobarbital. So, early recognition with the prompt recognition and withdrawal of all potential causative drugs is essential for a favourable outcome.[9]

CONCLUSION
Antiepileptic drug like Phenobarbital is known to cause SJS/TEN. This drug is most commonly prescribed; therefore, Physicians must more cautious before prescribing this drug. Patients should be educated regarding the adverse effects. Oral mucous membrane is often the first site to be affected by SJS. Early recognition of the oro-cutaneous manifestations and withdrawal of the offending drug is imperative to restrict the morbidity and mortality in these patients.

REFERENCES