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A CASE REPORT: PHENYTOIN INDUCED STEVENS JOHNSON SYNDROME

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ABSTRACT

Steven – Johnson syndrome (SJS) is a rare immune mediated hypersensitivity complex that involves serious life threatening skin condition and mucous membranes. It's usually an excessive reaction to a medication or an infection. Factors that increase the risk of developing SJS are viral infections, weakened immune system, medication related to this condition, organ transplant, HIV/AIDS, autoimmune disease (SLE), a family history of Steven-Johnson syndrome and genetic predisposition.

Keywords: Steven – Johnson Syndrome, Phenytoin, Antibiotics.

INTRODUCTION

Phenytoin is most widely used drug for different types of epileptic seizures especially by focal brain lesions[1] Stevens-Johnson syndrome (SJS) is rare condition mostly caused by drugs, but serious mucocutaneous reactions with extensive epithelial sloughing and systemic symptoms[2].

Common culprits among the drugs include anti-epileptics, antibiotics like sulfonamides and isoniazid, NSAIDS [3]. Symptoms which include cutaneous manifestations occur in the form of macular eruptions over the trunk, face and upper limb [4]. In 90% of cases mucous membrane involvement occur [5].

Diagnosis is mainly based on clinical aspect and prognosis of disease depends on age, presence of any comorbidities and area of detachment [4]. Most common complication of SJS is septicemia and multi organ damage which contribute to mortality [5]. Late complications include mucosal scarring and strictures which are frequent, Later eye complications leads to blindness which occur in 50% of cases [6].

MATERIAL AND METHODS

The Patient visited Sri Bhadrakali Clinic with rashes and other associated symptoms. His and Guardians' consent was seeked and explained about this case report publication. The Protocol and Written acceptance of them was submitted and got approved from Institutional Human Ethics Committee (IHEC).

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CASE REPORT

A 28 years old, male patient was identified with Steven Johnson Syndrome in Sri Bhadrakali Clinic and it was confirmed that the adverse reaction is caused by phenytoin 100 mg with Antibiotics Cefixime and Ofloxacin prior to the onset of reaction. The patient was observed with Exfoliation of skin all over the body since 5 days, painful swallowing and Spitting of blood. The patient had a past history of seizures since 3 years on irregular treatment of T.Eptoin 100mg twice daily.

On examination the patient was afebrile, pulse-90/min,BP-120/80mmHg.Investigation were done are shown in Table:1. The medication prescribed for the patient are Inj. Decadron 8mg IV TID, Liquid paraffin for local application, Calamine lotion for local application, Inj. Metronidazole 400mg IV TID, T.Erythromycin 500mg PO BD, T. Seratiopeptidase PO BD. T. Pantoprazole 40mg PO OD. Exfoliation of skin decreased after 15 days and the condition was improved at the time of discharge (Fig.1, Fig.2, Fig.3). Patient was managed using intravenous fluids, antifungals and antibiotics with careful monitoring of vitals and routine biochemical parameters. On discharge, patient's condition was significantly improved and was given with medication T. Augmentin 625 mg BD, T. CPM BD,

T. MVT OD, T.Rantac 150mg, Soframycin ointment.

Table: 1 Investigations of the patient

INVESTIGATIONS	
RBS	110 mg/dl
BUN	20 mg/dl
Serum creatinine	0.9 mg/dl
Platelet count	1 lakh cells/mm
WBC	2500 cmm
Haemoglobin	13.2 g%
Total cholesterol	192 mg/dl
HDL	65 mg/dl
LDL	105 mg/dl
TG	112 mg/dl
VLDL	22 mg/dl

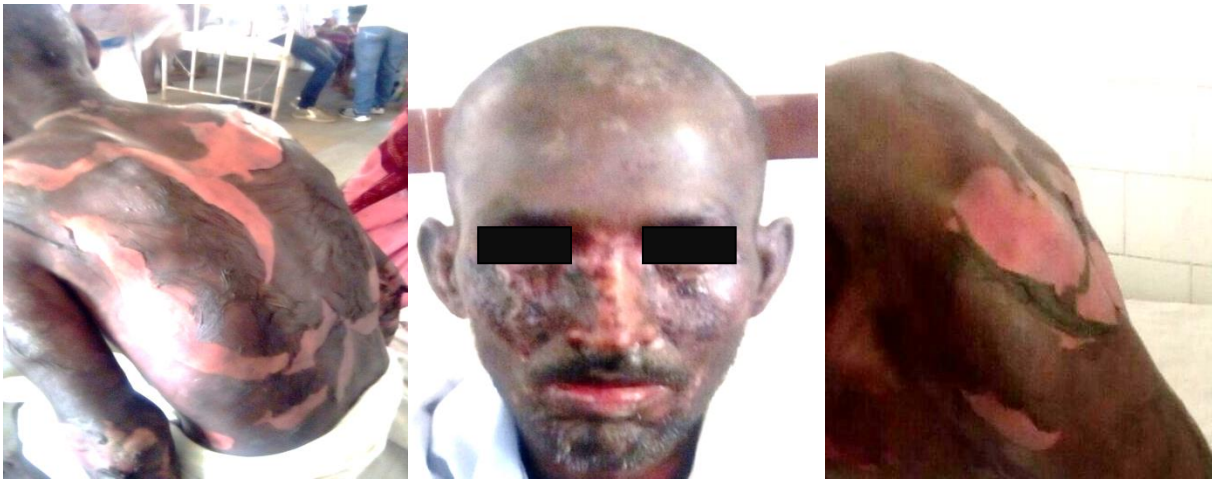

Figure:1 Exfoliation of skin on the day of admission

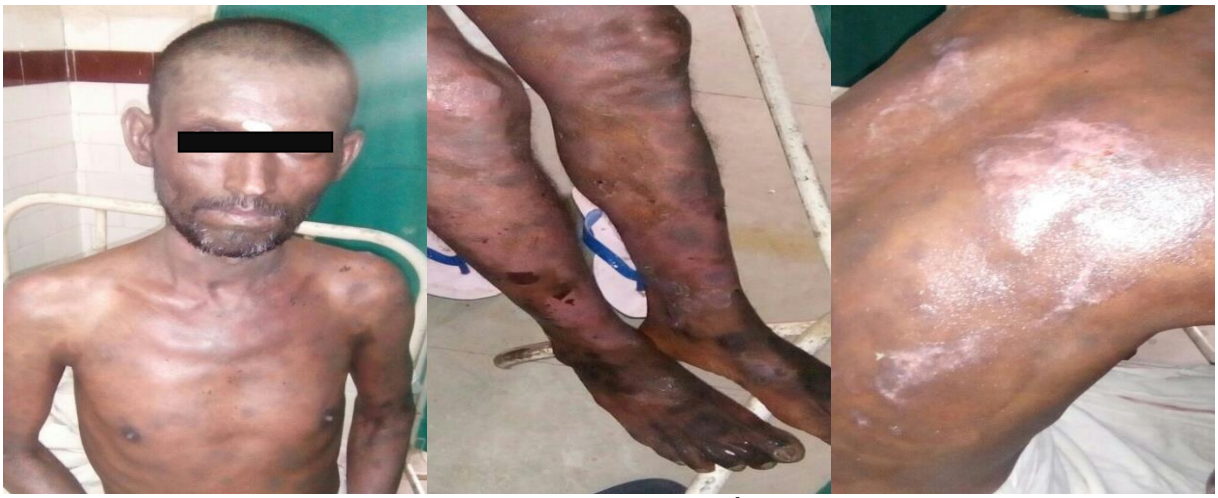

Figure: 2 After 15th day

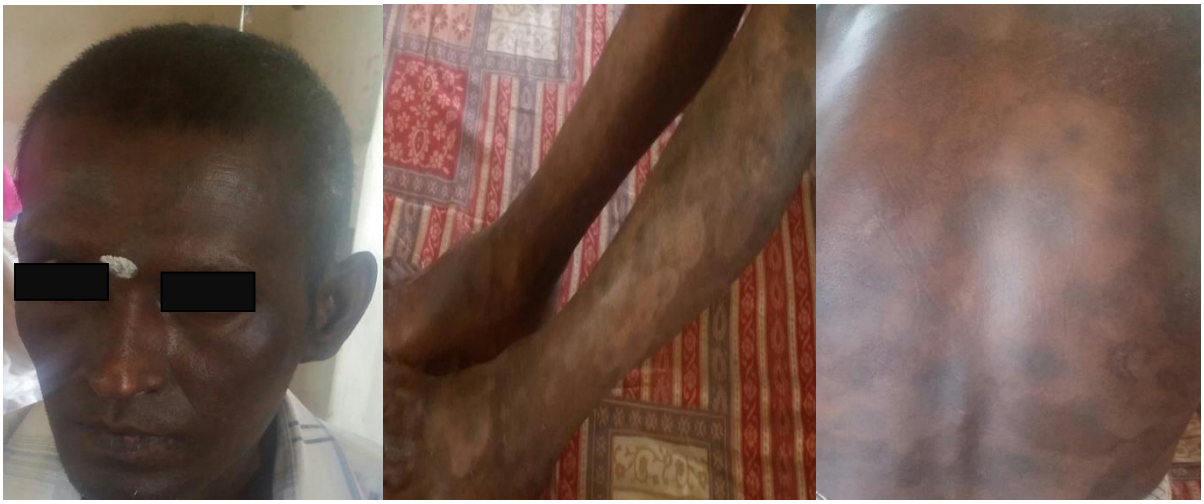

Fig: 3 At the time of Discharge

DISCUSSION

Phenytoin is a strong inducer of CYP450, which is linked to generation of reactive oxygen species and induction of oxidative stress [7]. Stevens-Johnson syndrome is a rare condition with manifestations of hypersensitivity reaction type IV and associated with a mortality rate of 1-5% [8].

After taking Phenytoin the onset of lesions occurs within 15 days and maculopapular nature of lesions with oral involvement is seen [9]. After anticonvulsants the risk of developing SJS is maximum in the first 2 months of therapy [10]. The diagnosis for SJS is mainly based on clinical ground [11].

CONCLUSION

Steven-Johnsons syndrome caused by drugs mainly due to antibiotics and antiepileptic are reported often. Regular monitoring of such ADRs, Early diagnosis can help educate physicians and patients which prevent the development of serious reactions. The foremost important step in treating SJS is to discontinue medications. Wound care with special dressing and Eye care is necessary.

Acknowledgement

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Competing Interests

The Authors declare that they have no competing interests.

Authors Contribution

Shirisha J worked in the Hospital in collection of data, Counseling the patient and their family, etc., Satish Ch designed the documents required for the work, Dr.B.Siva Subrahmanyam was helpful as Clinical guide in selection of Patient, making them understand about the work and treatment, Kottai Muthu A and Sharvana bhava B.S. discussed and conceived the idea of doing this work and prepared the Protocol.

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