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Toxic Epidermal Necrolysis: A Case Report

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ABSTRACT

Toxic Epidermal Necrolysis (TEN) is a rare but serious dermatological emergency characterized by diffuse exfoliation of the skin and mucous membranes due to immune mediated destruction of the epidermis which can lead to sepsis and respiratory distress. Early diagnosis and aggressive medical care is essential for the reduction of high morbidity and mortality associated with this disease. Toxic epidermal necrolysis (TEN) is a rare, acute, severe mucocutaneous reaction commonly presenting following medication use antiepileptic drugs, Corticosteroids, Antiretroviral drugs abacavir and nevirapine, Antibiotics, Allopurinol, NSAIDs (non-steroidal anti-inflammatory drugs). A 20 year old girl presented with altered sensorium, fever, generalized erythematous skin rashes and facial puffiness; she is under ant tubercular therapy, corticosteroids and phenytoin, characteristics of Toxic Epidural Necrolysis.

KEYWORDS: *TEN, Toxic epidural Necrolysis, Steven johns' syndrome, ATT*

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Case description:

A 20-year-old girl presented with paresthesia and low blood pressure Grade fever and headache. She is diagnosed Use of tuberculous meningitis and antituberculous therapy (ATT)-EHRZ regimen and tab-phenytoin. Prednisolone Added 30mg/day. she was apparently asymptomatic next 6 weeks. Drug compliance was satisfactory and side effects of treatment were observed until she had a fever and she has a rash. It quickly became popular Erythematous rash with swelling of the face, upper respiratory tract catarrhal and conjunctivitis. The patient was poisoned and had a fever polyarthralgia and respiratory infections. Then she he was believed to be suffering from a viral exanthemata's disease under the supervision of a doctor. In her next 48 hours, you the condition worsened as the skin lesions expanded, body temperature and heart rate, skin lesion turned purple and delicate.

Detected by dermatological examination Generalized cutaneous lesions affecting >95% of body surface area sparing only the antecubital fossa and popliteal fossa. The skin is markedly erythematous, edematous, and tender, detachment of body deflection. Nikolsky sign was positive. Also, there were few flaccid blisters in the dependent regions. In addition, she had oral candidiasis and stomatitis involving the genitals Mucous detachment (Fig. 1).

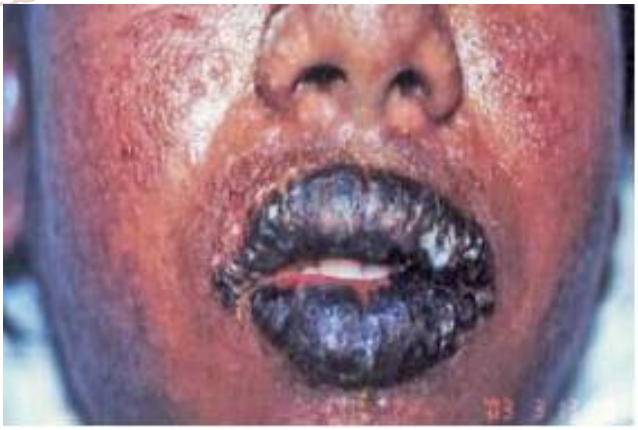

Figure 1: acute phase of TEN

A clinical diagnosis of toxic epidermal necrolysis was made and the patient was then transferred to the intensive care unit (ICU). Burn management setup. Blood investigations results anemia, polymorpho nuclear leukocytosis, Hypoalbuminemia with slight increase in transaminases. The pus swab grew

Staphylococcus aureus, blood culture negative. Histopathology showed confluent keratinocytes Necrosis, edematous degeneration of basal cells and Mononuclear infiltration around degenerated keratinocytes. Slight perivascular lymphocytic infiltration was seen in the upper part dermis.

Antituberculous therapy, phenytoin, steroids, non-steroidsanti-inflammatory drugs (NSAIDs) and all other drugs Stop. She was started on Augmentin and Amikacin injections. Syrup cyclosporine at a transplant rejection dose of 12.5 mg/kg/days administered to keep the body in check violent reaction. Supportive care with injections Ranitidine, Injectable Pethidine, and Injectable Phenergan, Prophylaxis for gastrointestinal bleeding and pain was initiated. Tablet Fluconazole 150 mg/day and clotrimazolelotion administered for oral candidiasis and otitis externa. 1:100savlon wash and framycetin tulle dressing was carried out twice a day. Celemin 1mg/kg/day was given in view of thehypoalbuminemia.

A significant improvement seen within 4 days of use stabilization of important parameters, absence of fresh blisters, Reduction of erythema and exudation from the skin. Injection Streptomycin and tablet ciprofloxacin alternate ATT. she improved in the next week resolution of lesions on the trunk and extremities. Body flexors and genitals were the last to recover with cyclosporine intravenous antibiotics were discontinued after her 10 days of treatment.

A ATT return to work will continue in the next few weeks Ethambutol, INH, pyrazinamide, however, when tried upon reintroduction of rifampin, she developed erythema rash, fever, and itching within hours of taking the medicine. We therefore proposed that rifampicin was the incriminating drug in this case and withdrawn. The patient was informed accordingly.

Discussion:

A case of toxic epidermis due to rifampicin Necrolysis fully responsive to cyclosporine Presented. Patient developed TEN in about 6 weeks after the start of ATT appeared in Classic shape. Delayed onset may result from short circuits. A course of systemic steroids at the start of ATT. Liquid burn recording and management in intensive care units Electrolyte replacement and intravenous antibiotics beneficial to the patient. The shortened acute period is due to early and targeted administration Cyclosporine. Other authors have reported similar results Cyclosporine. Cyclosporine inhibits principle Cell populations involved in TEN pathogenesis (activated T lymphocytes, macrophages, keratinocytes), Inhibits metabolism of tumor necrosis factor (TNF) and has anti-apoptotic properties. The effectiveness of cyclosporine may be due to this Ability to interrupt and allow disease onset Early re-epithelialization of the skin surface to be influenced. Vigorous topical therapy reduced residual Prevalence of scarring.

The causative drug, rifampicin identified on subsequent challenge, has been reported as a cause of TEN. More other ATT drugs known to produce TEN arethiacetazone, isoniazid (INH) and ethambutol. commonly, sulphonamides, carbamazepine, phenytoin, oxicam NSAIDs and allopurinol are incriminated. The incubation period of TEN caused by antitubercular drugs (mean 19 days) was longer than with other drugs (mean5 days).

Conclusion:

This report details the progression of Toxic Epidermal Necrolysis (TEN) in a 20-year old girl with a history of ATT, corticosteroids and phenytoin use. Case reports of TEN implicating anetiological agent are rare in the literature. We hope that this case highlights the importance of early clinical suspicion and management in the context of a similar presentation, early involvement of the wider multidisciplinary team and early supportive measures to minimize progression and the complications of this potentially life threatening condition.

Conflict of Interest:

None

Funding:

None

Consent for publication:

Informed consent was obtained from the parents of the patients to publish this case in medical journal.

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