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Lichenoid Drug Reaction In A Case Of Tb Orchitis: A Case Report

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I. Introduction:

Adverse drug reaction can be predictable or unpredictable. The effectiveness of ATT such as Rifampicin , Isoniazid , Pyarazinamide , Ethambutol are complicated by the severity of adverse reaction. Lichenoid drug reaction incidence among patients taking first line Antitubercular drugs is roughly 10%[1]. Clinically these lesions resemble lichen planus with subtle differences.

II. Case Report:

A 66 yr male, retired school teacher presented to us with pruritic , scaly lesions all over body. He is diagnosed with TB Orchitis and orchidectomy has been done following which he started taking ATT. He has completed 2 months of IP (HRZE) and has taken HRE for 15 days. Following which he developed pruritic lesions all over body.

Histopathological Examination (Testis): Necrotizing granulomatous inflammation with langerhans giant cell in background of caseous necrosis.
Z-N Stain: Reveals Acid Fast Bacilli
High Resolution Sonography: Left sided Orchitis with b/l Epididymitis
Blood investigation: Hb – 10.7gm%, TLC – 5.0 X 10^3/mm^3, TPC – 2.5L/mm^3 , RBS – 144mg/dl , HIV – Non reactive , LFT – WNL.

Local examination:

Multiple well defined hyperpigmented to violaceous plaques associated with adherent scales distribute over whole trunk, b/l lower limb, b/l arm and forearm and scalp with relative sparing of face.
Multiple hyperpigmented plaques present over the tongue and b/l buccal mucosa.

Management:

ATT was stopped for 7 days and dermatological consultation done and treated with topical steroid (mometasone cream), calamine lotion and antihistamine drug. After the rashes subsided each drug was introduced gradually (H followed by R followed by E). No reaction or skin manifestation seen. Hence Pyrazinamide was the offending drug. As patient is in continuation phase (HRE) is continuing for 4 months.

III. Discussion:

The spectrum of tuberculosis associated cutaneous adverse drug reaction is wide[2]. It is postulated that the mechanism of lichenoid tissue reaction is the expansion of T cells which recognize the drug as foreign. T cell produces a delayed immune response or type 4 hypersensitivity reaction to administered drug; key mediators in this reaction are INF-alpha, which further causes activation of INF-gamma and CXCR3 ligands[3]. As a result, there is accumulation of cytotoxic TH1 cells and dendritic cells in the lesion that stimulates the inflammatory cascade. It is characterized by symmetric eruption of flat topped, erythematous or violaceous papules resembling lichen planus on the trunk and the extensor aspect of the extremities[4].

IV. Conclusion:

Antitubercular drugs are known to cause various side effects of which Lichenoid drug reaction are rare occurrence. On confirmation of the diagnosis, the practical dilemmas are managing tuberculosis associated cutaneous adverse drug reactions. Withdrawal of ATT was done at first. Usage of topical steroids and moisturizer was done. After the lesions subsided one after one ATT drug was introduced to find the culprit drug.

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