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RESEARCH ARTICLE

CUTANEOUS DERMATOPHYTOSIS MIMICKING AUTOIMMUNE BLISTERING DISORDER

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Abstract

Some infectious diseases can clinically present as vesiculobullous disorders. A case of 33-year-old male patient presented with red, itchy skin lesions and few fluid filled lesions over both groins since 2 months. On clinical examination, multiple tense bullae with clear fluid over background of well defined erythematous plaques over both groins were noted.Histopathological examination showed subepidermal blister with abundant fibrin and numerous eosinophils in the blister cavity.Based on the diagnosis of biopsy proven bullous pemphigoid patient was started on steroids (Inj. Dexamethasone 2cc IV OD in morning) as treatment for 5 days. But on day 6 patient developed 216papular lesions over the original site where erythematous plaques were present.To rule out infectious etiology, KOH(10%) wet mount examination of the scales from the borders of the lesion showed numerous thin septate fungal hyphae and culture for fungus from skin scrappings showed growth for trichophyton mentagrophytes.So here, a case of 33 year-old male with cutaneous dermatophytosis having presentation mimicking bullous pemphigoid both clinically and histopathologically has been described.

Introduction:-

Bullous pemphigoid (BP) is an autoimmune blistering disorder resulting fromautoantibodies directed against BP180 and/or BP230 proteins.Bullous pemphigoid is traditionally diagnosed based on clinical features, histologic assessment of cutaneous biopsies, direct (DIF) and indirect immunofluorescence (IIF) studies, and/or enzyme-linked immunoassay (ELISA) analysis. Some of the fungal infectious diseases like dermatophytosis can mimic as autoimmune blistering disorders occasionally.Presenting a case of a 33 year old male who presented with initial clinical, histological findings suggestive of bullous pemphigoid which eventually turned out to be a case of cutaneous dermatophytosis.

Case Report-

A 33 year old male patient presented with the complaints of red skin lesions and few fluid filled lesions over groins associated with itching since 2 months.No history of application of any topical or systemic agents. No history of any mucosal involvement.

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On Examination –
Multiple tense bullae with clear fluid noted over background of well defined erythematous plaques over the groin region.

Fig AFig B

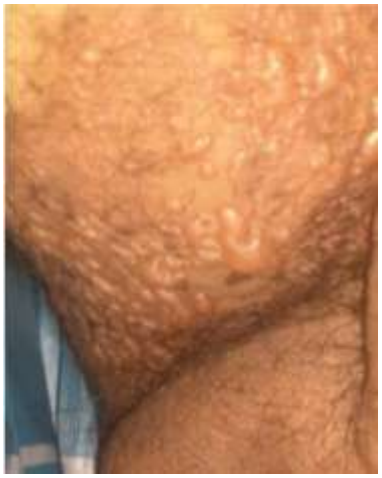
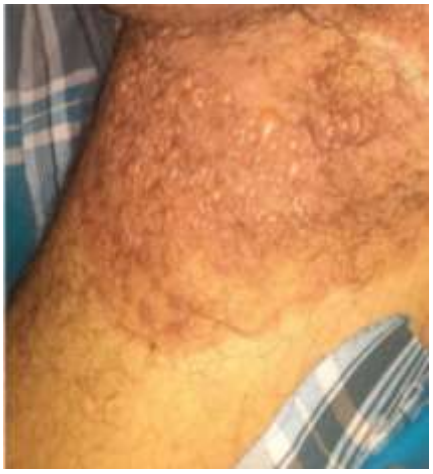

Fig A and B:- Well defined erythematous plaques with tense bullae over both groins.

Investigations-
Raised WBC count was 11,900 per microliter, other hematological and biochemical tests were normal, viral screening for HIV, HEP B and HEP C were negative.

Considering the differential diagnosis of bullous pemphigoid and linear IGA disease based on clinical presentation, a 4mm punch biopsy from bulla on erythematous plaque from left groin was done and sent for histopathology which showed subepidermal blister with abundant fibrin and numerous eosinophils in the blister cavity.Dermis showed moderately dense superficial perivascular mixed infiltrate of lymphocytes and eosinophils.Spongiosis with eosinophils were seen at periphery of blister. Papillary dermis showed edema and numerous eosinophils some of which were present at dermoepidermal junction. (Fig A and B)

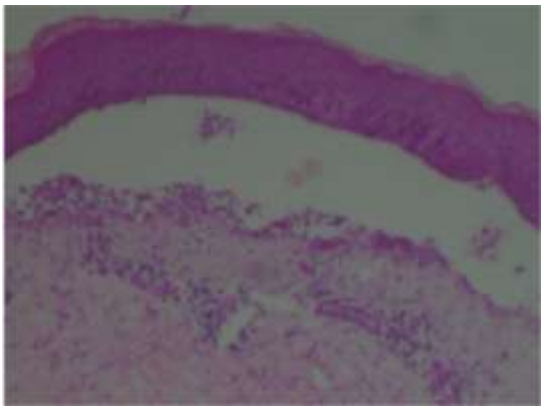
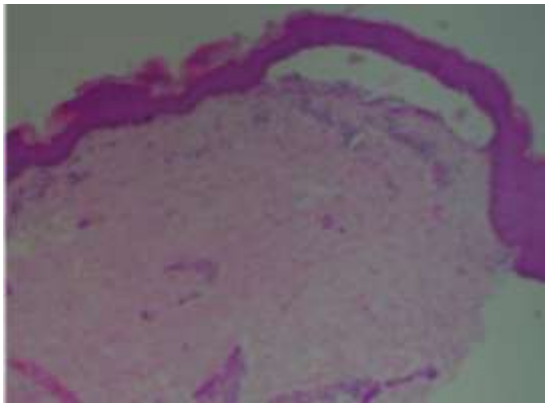

Fig A Fig B

Management And Outcome-
Clinically and histologically, taking in consideration the diagnosis of bullous Pemphigoid, the patient was 217hospitalised and was given intravenous 8 mg dexamethasone for 3 days and other supportive treatment.After 3 days of treatment all the bullous lesions and erythematous plaques disappeared, the treatment was continued for 5 days but on 6th day patient started developing multiple tiny dry scaly 217papular lesions over the same site where large erythematous plaques were present. On further investigating for any infectious etiology, 10% KOH examination of scales from skin lesions was done which showed numerous thin septate fungal hyphae andfungal

culture from skin scrapping showed growth for trichophyton mentagrophytes. Steroids(IV dexamethasone) therefore were withdrawn from treatment after 5 days.

Final treatment – Oral Itraconazole 200 mg daily, topical luliconazole cream BD and Tab. Levocetirizine 5 mg OD night was given for 6 weeks.Patient achieved complete resolution of lesions by 6 weeks.Lesions were healed by leaving behind hyperpigmentation.

Discussion:-

Our patient had clinical, histopathological findings of bullous pemphigoidwhich were present in background of tinea cruris plaques.This atypical variant of dermatophytes having bullous lesions can be explained by molecular mimicry.The presence of fungus in stratum corneum could have invoked intense inflammatory response due to hypersensitivity which, in turn might have led to deposition of the immune complex at the dermoepidermal junction due to antigen mimicry. Clearance of antigenic stimulus with anti fungal therapy could possibly explain absence of relapse.

Conclusion:-

Considering the increasing cases of dermatophytosis in India, it is helpful to keep in mind its uncommon presentations which includes bullous lesions mimicking autoimmune blistering disorders.

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