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Medical Science

A CASE OF INVERSE PSORIASIS TREATED WITH TOPICAL TACROLIMUS

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ABSTRACT A 29 yr old man develops erythematous plaques with maceration and few erosions over right axilla and perineum, plaques were associated with mild itching. Potassium hydroxide smear was done - fungal elements were negative.Other routine investigations were postitive. Biopsy was diagnostic of psoriasis. Inverse psoriasis usually occurs in patients with plaque psoriasis but in this patient inverse psoriasis occured without plaque psoriais. Erosions decreased after using systemic antibiotics for 1 week, sodium fusidate 2 % cream twice daily for 2 weeks. Macerations decreased after application of tacrolimus 0.1% gel twice daily for 1 month, followed by once daily for two months.

KEYWORDS : inverse psoriasis,hyperpigmented plaque,maceration,tacrolimus.

INTRODUCTION:

Psoriasis is a common chronic inflammatory and proliferative skin disease with 2-3% of world population suffering from psoriasis.(Meeuwis K et al. 2011)Inverse psoriasis affects between 3% and 7% of the patients with psoriasis; however, the actual incidence is still unknown.(Wang G et al. 2005) The local condition like warmth, moisture, and friction, make it susceptible to maceration, fissuring, constant irritation, and absence of scaling in the intertriginous areas which induces the modified clinical appearance of psoriasis in flexural folds when compared with classical characteristics of psoriasis vulgaris.

CASE REPORT:

A 29-year-old male patient, presented with dark raised skin lesions over the right axilla and perineum associated with itching, since one year. The Lesions are initially small in size gradually progressed to thumb size. The lesions are associated with pain and bloody discharge since four months. Itching and pain are mild and intermittent . They are not associated with constitutional symptoms.

General examination is normal.

Cutaneous Examination: Two hyperpigmented plaques of size ranging from 2x4 cm to 4x5 cms present on right axilla and perineum (fig-1) with multiple erosions, maceration and mild scaling. Auspitz's sign – negative. Hair, nail, oral and genital mucosa are normal.

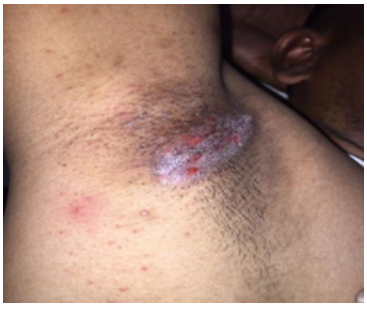

Fig 1.

INVESTIGATIONS:

Complete blood count , complete urine examination, serum creatinine, blood urea, thyroid profile, lipid profile, liver function test, electrocardiogram , X-Ray chest PA view were within normal limits. Skin scrapings for fungal elements (KOH) - negative

SKIN BIOPSY:

Section shows skin with epidermis showing hyperkeratosis with areas of parakeratosis. Marked acanthosis with elongated rete ridges. Granular layer diminished. Dermis shows mild perivascular inflammation composed of lymphocytes and histiocytes.

TREATMENT:

Initially, patient was treated with systemic antibiotic for 1 week and topical sodium fusidate cream 2% for erosions twice daily for 2 weeks, followed by local application of tacrolimus 0.1% gel, twice daily for 1month then once daily for 2 months.The lesions healed in 2 months (fig.2).

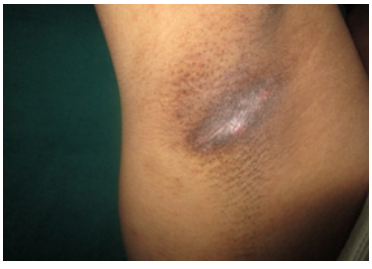

Fig 2

DISCUSSION:

Inverse psoriasis, also known as intertriginous or flexural psoriasis, is a form of psoriasis that presents itself as erythematous plaques with poor or non-desquamation in skin flexion folds.(Guglielmetti A et al. 2012) Inverse psoriasis causes secondary fungus, yeast and bacterial infection leading to worsening of psoriasis. (Mélissa Saber et al.2011) Flexural psoriasis is seen in individuals with plaque psoriasis elsewhere on skin.Less frequently lesions are confined to flexural sites.Inverse psoriasis may occur as primary disorder or as Koebner phenomenon on infective or seborrhoeic intertriginous dermatoses.(Christofer Griffiths et al.2016) Beyond the infectious skin diseases, there are other less likely and potentially more dangerous causes of intertriginous plaques. These include extra-mammary Paget disease, glucagonoma syndrome, and Langerhans cell histiocytosis. Intertriginous plaques can also be caused by Hailey-Hailey disease (also known as benign familial pemphigus) and flexural Darier disease (also known as keratosis follicularis).(Zain U. Syed, 2011)

Beyond the infectious skin diseases, there are other less likely and potentially more dangerous causes of intertriginous pla Beyond the infectious skin diseases, there are other less likely and potentially more dangerous causes of intertriginous pla Tacrolimus is a macrolide lactone, immunosuppressive agent. The cutaneous penetration is lower where the epidermis is thicker. Alternatively, tacrolimus absorption is optimal in the sensitive skin areas such as face, neck, flexures, and genital areas.(Marina Talamonti et al. 2014) Tacrolimus is the topical calcineurin inhibitor, binds to FK506, and calcineurin. It prevents the dephosphorylation of the nuclear factor of activated T-cells (NFAT), which lead to the blocking of cascade of cytokine gene transcription, such as interleukin-2 (IL-2), IL-4 and tumor necrosis factor. Other immunomodulatory effects of tacrolimus include the inhibition of mast cell adhesion, the inhibition of the release of the

mediators from mast cells and basophils, and the downregulation of the expression of IL-8 receptor.(Toshiyuki Yamamoto et al.2009)

In an open-label trial, 0.1% tacrolimus ointment was applied twice daily for 8 weeks for the facial or intertriginous areas in 21 patients with psoriasis. A total of 81% (17 of 21 patients) showed complete clearance at day 57. Only 2 patients reported adverse events, which were limited to itching and the feeling of warmth at the application site (Freeman AK et al.2003) In a retrospective case, which evaluated the efficacy of tacrolimus 0.1% ointment to treat inverse psoriasis in children, twelve of 13 patients had complete clearance of their psoriatic lesions within 2 weeks after initiating treatment with topical tacrolimus 0.1%. (Jennifer A. Steele, 2005)

CONCLUSION:

Inverse psoriasis is usually presented with plaque psoriasis elsewhere on skin,less frequently it can present as plaque psoriasis.We present a case of 29 yrs old man with inverse psoriasis without plaque psoriasis.

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