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Pyogenic granuloma-like lesions due to antifungal-corticosteroid combination creams

Sir,

Three men between 40 years and 55 years of age presented with eruptions in the groins of one to two months' duration. They had suffered from repeated episodes of tinea cruris in the past one year. Topical fungicidal creams were used by all for around six weeks with clinical improvement and resolution, but the lesions would recur within one or two weeks (even after using different antifungal preparations). When the episodes lasted over many months, the physician prescribed them combination creams containing mid-potent or potent corticosteroids - beclomethasone, betamethasone and clobetasone. No oral antifungal agents were given. After early relief, they started applying the steroid-containing combination creams on their own, barely noticing the development of striae. The onset of some new eruptions along the striae made them seek advice from the dermatologist.

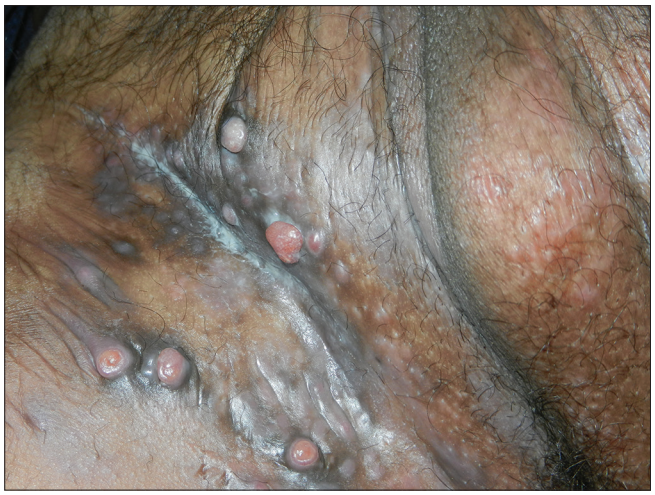

Figure 1: Tiny lesions arising along striae

On examination, circumscribed, sessile and eroded papules of varying diameter from 2-5 mm were seen in the inguinal folds, predominantly along the striae, one or more on either side or both. In one patient with a longer duration of lesions, the skin around the papules was hyperpigmented [Figure 1]. The diagnoses considered included pyogenic granuloma, iatrogenic ulcers and secondary syphilis. Biopsy was done in two patients. Histopathology showed irregular acanthosis with ulceration; the dermis revealed proliferating blood vessels of varying sizes amidst fibrotic collagen along with edema and acute and chronic inflammatory cells [Figures 2a and b]. Periodic acid–Schiff stain for fungus was negative. The histopathological features were of non-lobular capillary hemangioma simulating granulation tissue. Blood investigations including venereal disease research laboratory test was negative in all. Combination creams were strictly withheld. Oral terbinafine 250 mg daily, potassium permanganate soaks and topical betadine were advised. Four weeks later, resolution of the lesions was seen. The patients were asked to continue therapy for two more weeks after which topical fungicides were added.

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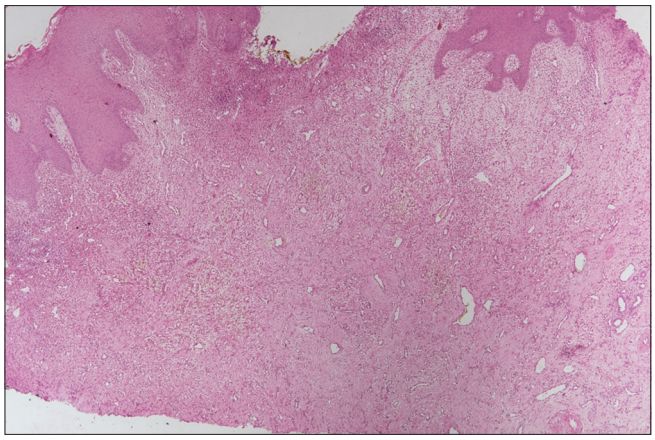

Figure 2a: Histopathology showing epidermal acanthosis and ulceration (H&E, ×200)

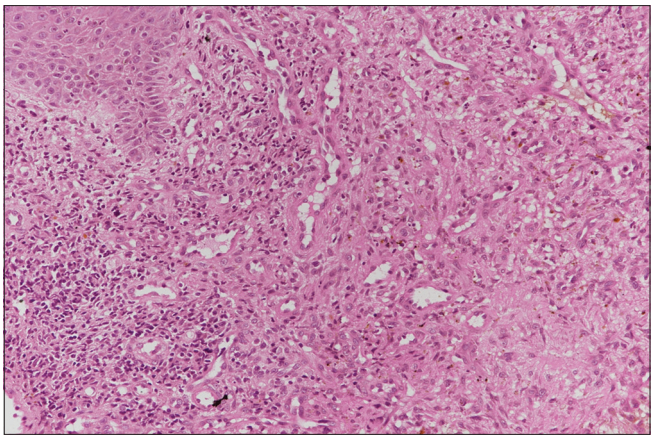

Figure 2b: Proliferating vessels amidst fibrotic collagen (H&E, ×400)

The current spate of dermatophytic infections in India has transmogrified into an aggressive dermatosis defying available antifungal remedies. Recently, a conference was held, attended by national and international experts devoted exclusively to assess this evolving diabolical trend and plan future studies, the proceedings of which have been published.[1]Meanwhile, physicians and patients have been battling the situation since the recommended therapy has consistently failed. The patients in this report were otherwise healthy and had tinea cruris which responded to topical antifungals but always recurred. Hence, they were given antifungal creams combined with corticosteroids. Analysis of the clinical studies shows that combination products preferably containing a low potency non-fluorinated corticosteroid were prescribed earlier as an initial therapy to tackle the inflamed lesions, never exceeding two weeks in tinea cruris after which only antifungals were continued.[2] However, in this case, following initial relief, the patients continued applying the creams unsupervised, causing development of striae, followed by pyogenic- granuloma like eruptions. Unlike the lobular capillary pattern seen in a typical pyogenic granuloma on histopathology, a reparative vascular phenomenon is seen here (similar to granulation tissue), clinically simulating pyogenic granuloma.[3] Steroid-induced epidermal and dermal atrophy[4] lead to striae formation and continued application could have resulted in breaks in the weakest areas causing exposure of the underlying fibrovascular contents, resembling pyogenic granuloma. Like intermammary areas, the inguinal areas are susceptible to topical corticosteroid-induced ulcers due to thin skin, elevated temperature, moisture and occlusion of the opposing surfaces.[5] Such lesions in diseased skin have also resulted from topical retinoid-induced skin fragility and changes in the connective tissue.[6] Since pyogenic granuloma is now synonymous with lobular capillary hemangioma, such lesions may be better termed pyogenic granuloma-like tissue reactions.

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Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

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Conflicts of interest

There are no conflicts of interest.

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