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Bullous striae distensae with prolonged steroid use: An unusual clinical presentation

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Bullous Striae Distensae with Prolonged Steroid Use: An Unusual Clinical Presentation

Sir,

A 28-year-old female patient, 21 weeks pregnant, with a known diagnosis of systemic lupus erythematosus (SLE), presented in the emergency department with the complain of acute gastroenteritis, and fluid filled blisters on abdomen, for which dermatology consultation was taken on board.

The patient was diagnosed with SLE six years back with symptoms of photo sensitivity and joint pain. On investigations she had positive antinuclear antibodies (ANA) and anti-ds DNA. Patient was being treated with prednisolone, hydroxychloroquine and azathioprine in different dosages and for different time periods in past six years. At the time of admission, she was on prednisolone 10 mg daily for the last two months, after developing a flare of SLE evidenced by increasing photosensitive malar rash, arthralgia, oral ulcers and generalized body edema. According to the patient, she developed striae two months ago, but she noticed fluid in them about a week ago. They were associated with mild pain but no itching.

On careful examination, the lesions were noted on abdomen and breasts bilaterally. Few of them were oozing with clear fluid [Figures 1-4]. There was grade 3+ pitting edema in lower limbs. The fluid was aspirated and sent for culture and sensitivity examination, which showed clear fluid and no growth of micro-organisms. Other laboratory investigations showed normal complete blood count, liver function test, blood glucose, electrolytes and renal function tests, but there was marked hypoalbuminemia (1.6 g/dl), proteinuria (3+) on dipstick and 2.4 g protein per 24 hours urine collection with raised ESR (108 mm/1st hour). Fetal anomaly scan showed no abnormality. She was effectively treated for acute gastroenteritis and after the aspiration of major bullae, tight dressing was applied on them to stop refilling. Treatment of SLE was rectified with addition of 400 mg hydroxychloroquine and continuation of steroids. Follow-up after 2 weeks showed the persistence edematous lesions, similar treatment was repeated and she was referred to nephrology and obstetric team for further continued care.

Striae distensae (SD) or stretch marks are common dermatological lesions which are primarily a form of dermal scarring.[1] It has both physiological and pathological etiologies like pregnancy, rapid weight loss or gain, adolescence, Cushing syndrome and Marfan's Syndrome. However, the pathophysiology is not yet fully understood.[2] It commonly presents as erythematous plaques known as straie rubra or silvery atrophic plaques known as straie alba.[3] However, few uncommon presentations of the striae; like ulcerative, edematous, urticated and emphysematous forms have been reported previously.[2] Among all these presentations, fluid-filled or bullous SD have been rarely reported previously.[4,5] On literature review, it was noted that even in very few reported cases of bullous SD, except one patient, almost all the other patients were on long-term oral steroids and had hypoalbuminemia.[4,5] Our patient was

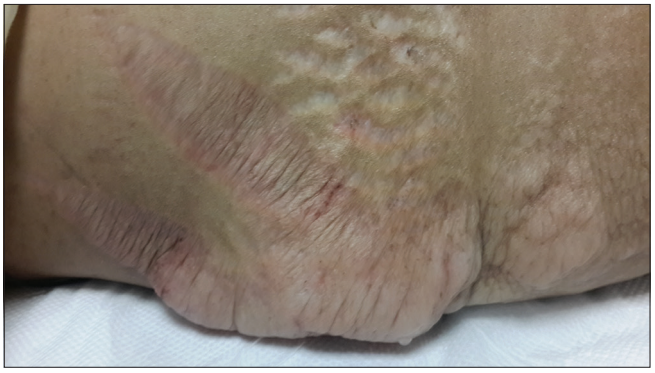

Figure 1: Slightly erythematous, and edematous plaques with oozing clear fluid on flanks

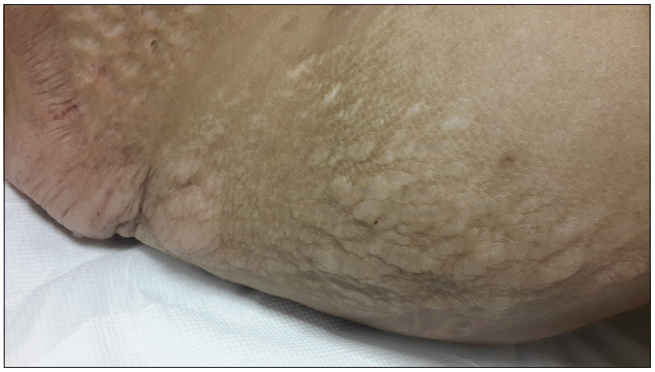

Figure 2: Multiple edematous plaques on flank

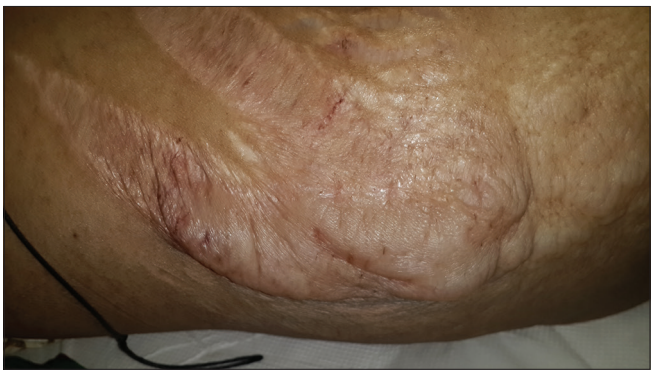

Figure 3: Erythematous bullous plaques of striae distensae on lower abdomen and flank

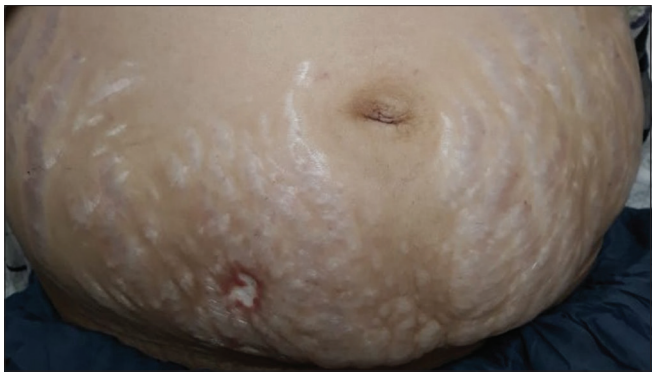

Figure 4: Multiple edematous shiny plaques of striae distensae on abdomen and flanks

also treated with oral prednisolone for SLE, had severe proteinuria and hypoalbuminemia after which she developed the striae. This suggests that in patients who are on oral steroids with generalized body edema, there may be preferential fluid buildup in the striae, which might happen due to the combined effect of both steroid and anasarca; as the glucocorticoids cause enhanced collagen breakup leading to decreased tensile strength, leading to preferential build-up of ansarcal fluid in striae spaces forming fluid filled sacs. Fluid filled SD albeit seemingly benign; their dramatic appearance may alarm the physician due to a lack of familiarity with this uncommon phenomenon. Awareness of this unusual clinical presentation can lead to prevention of unnecessary and excessive interventions whether investigatory or therapeutic.

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Conflicts of interest

There are no conflicts of interest.

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References

1. Cho C, Cho E, Kim N, Shin J, Woo S, Lee J, *et al*. Biophysical properties of striae rubra and striae alba in human skin: Comparison with normal skin. Skin Res Technol 2019;25:283-8.
2. Ross NA, Ho D, Fisher J, Mamalis A, Heilman E, Saedi N, *et al*. Striae distensae: Preventative and therapeutic modalities to improve aesthetic appearance. Dermatol Surg 2017;43:635-48.
3. Yamaguchi K, Suganuma N, Ohashi K. Quality of life evaluation in Japanese pregnant women with striae gravidarum: A cross-sectional study. BMC Res Notes 2012;5:450.
4. Gupta V, Yadav S. Bullous striae distensae. Postgrad Med J 2017;93:108.
5. Jogova M, Hwang SW. Fluid-filled striae in a patient with hypoalbuminemia. CMAJ 2017;189:E942.

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