Scleredema adultorum of Buschke over the abdomen during pregnancy: an uncommon presentation

Dear Editor,

Scleredema adultorum of Buschke is a cutaneous mucinosis characterized by non-pitting skin induration predominantly affecting the upper back, neck, and face (1). Involvement of other areas, particularly the abdomen, is rare, end its occurrence during pregnancy is uncommon with very few cases documented in the literature (2). We present a case of scleredema at an atypical site during pregnancy.

A 37-year-old woman of 36 weeks gestation presented to the dermatology outpatient clinic with a two-week history of progressive thickening and pruritus of the lower abdominal skin. There was no associated fever, trauma, infection, or systemic symptoms. She had no history of diabetes, thyroid dysfunction, or autoimmune disease. On clinical examination, the abdominal skin was diffusely indurated, and non-pitting (Figure 1), with sparing of the flanks and back. Systemic examination was unremarkable. Routine laboratory investigations, including complete blood count, liver and renal function tests, fasting blood glucose, and thyroid profile, were within normal limits. Due to the unusual thickening of abdominal skin with extensive, severe "*peau d'orange*" appearance (not routinely seen in all pregnancies), a skin biopsy was performed. This revealed thickened collagen bundles with interstitial mucin deposition (Figure 2a) confirmed by Alcian blue staining (Figure 2b), which was consistent with scleredema adultorum. Serum immunoelectrophoresis showed no abnormal changes. The patient was managed conservatively with topical emollients and oral antihistamines for symptomatic relief. She was monitored through regular dermatology and obstetric follow-up visits. The induration remained stable throughout pregnancy, and pruritus was adequately controlled. At 38 weeks, she delivered a healthy infant and at six weeks postpartum, the abdominal skin induration showed partial resolution, and the patient reported marked symptomatic improvement. Given the absence of systemic involvement or associated conditions, normal serum immunoelectrophoresis and spontaneous partial resolution of the skin induration post-delivery, a diagnosis of pregnancy-associated scleredema adultorum was made.

Scleredema is a rare form of cutaneous mucinosis that presents with non-pitting induration of the skin (1). It is histologically characterized by thickened collagen bundles and mucin deposition which distinguish it from other sclerosing skin disorders (2). Scleredema is classified into three main types: a) postinfectious that is typically self-limiting; b) diabetic-associated, which is the most common form; and c) paraproteinemia/malignancy-associated, which may be progressive and is sometimes linked with systemic disease or malignancy (3).

The timing of disease onset during pregnancy, without underlying abnormalities, supports the hypothesis that hormonal and immunological changes during pregnancy may

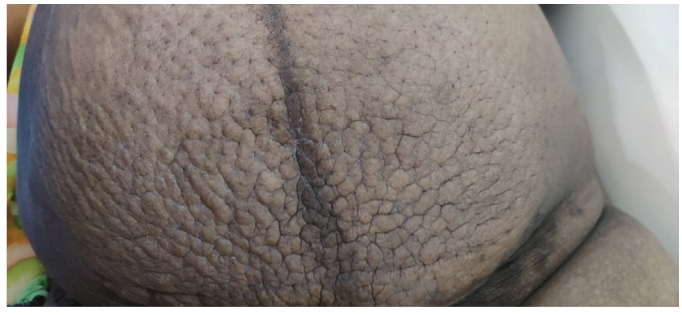

Figure 1. Thick, non pitting induration of skin over the abdomen giving a paeu'd orange dash like appearance

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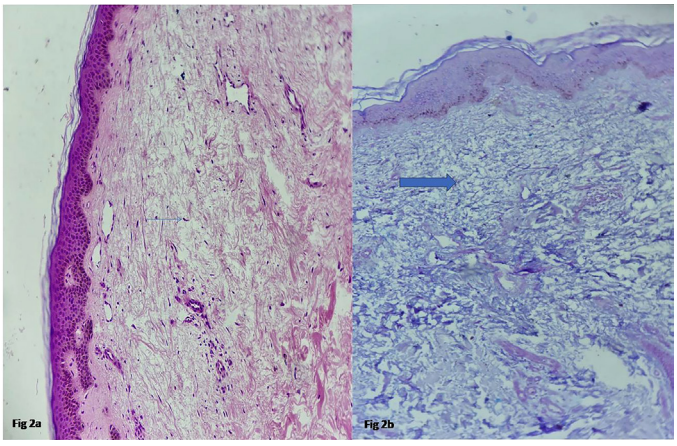

Figure 2. a) Hematoxylin and eosin stain (10x) shows thickening of dermis. The blue arrow indicates a few proliferating fibroblasts. b) Alcian blue PAS stain (10x) highlights the dermal mucin depots denoted by a blue arrow

alter mucin metabolism and fibroblast activity, contributing to the development of scleredema in susceptible individuals. Differential diagnoses considered included morphea (localized scleroderma), scleromyxedema, and nephrogenic systemic fibrosis (3,4). Scleromyxedema, scleroderma and nephrogenic systemic fibrosis are usually characterized by increased number of fibroblasts or fibrocytes which was not seen in the present case.

Treatment options for scleredema vary depending on etiology and disease severity. Conservative management with emollients and antihistamines is often sufficient in self-limiting or pregnancy-associated cases (4,5). In more persistent cases, therapies such as psoralen and ultraviolet A light exposure, intravenous immunoglobulin, methotrexate, and colchicine have shown benefit (5). However, during pregnancy, therapeutic decisions must prioritize fetal safety. The favourable postpartum resolution in the presented case further supports conservative management in similar presentations.

To conclude, this case highlights a rare, pregnancy-associated presentation of scleredema adultorum involving an atypical site, the abdomen. In the absence of systemic disease or comorbidities, the condition followed a benign course with spontaneous postpartum improvement. A high index of suspicion and histopathological confirmation may be essential in diagnosing unusual dermatoses during pregnancy.

Ethic

Informed Consent: *Informed consent was taken from the patient for publishing information about her cutaneous condition and her picture without revealing her identity*

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