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Review article

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Third Trimester Impetigo Herpetiformis In Multiparous Female

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Abstract

Impetigo herpetiformis is a rare life threatening pustular dermatoses of pregnancy. The etiology is unclear but is usually steroid responsive. A case of impetigo herpetiformis in a multiparous 40 years old lady in her 30 weeks of gestation is presented. She was on the topical corticosteroids.

Key Words: Case Presentation, Impetigo, Pregnancy, Psoriasis

Introduction

Impetigo herpetiformis is a rare dermatosis of pregnancy with typical onset during the last trimester of pregnancy and rapid resolution in the postpartum period [1]. Clinically and histologically, it is consistent with pustular psoriasis. This similarity has led some authors to name the disease "the pustular psoriasis of pregnancy"[2]. Specific dermatoses of pregnancy are classified as: pemphigoid gestationis (herpes gestationis), pruritic urticarial papules and plaques of pregnancy, atopic eruption of pregnancy (eczema in pregnancy, prurigo of pregnancy, pruritic folliculitis of pregnancy) and pustular psoriasis of pregnancy (Impetigo herpetiformis). Impetigo herpetiformis (pustular psoriasis of pregnancy) is a variant of pustular psoriasis, a specific dermatosis that occurs in pregnancy with the onset being in the 3rd trimester in majority of the cases. The condition was first reported by Ferdinand Ritter von Hebra in 1872. In his report, von Hebra [3].

Case Presentation

A multiparous 40-year-old 30 weeks presented with a 10-days history of pruritic erythematous patches and plaques with grouped pustules. In the axilla spread to the whole body involving the face but sparing the palmoplantar areas. Her pregnancy was complicated gestational diabetes mellitus occurring 4 weeks before presentation. She denied any systemic symptoms. She has no personal and family history of psoriasis. She was on iron and folate supplement since early pregnancy. She had a few days after the eruption with no improvements.

Investigation

Including serum calcium level, were normal. Outline bacterial culture from the pustules negative.

Skin Biopsy

Histology of the skin revealed focal parakeratosis with neutrophilic collections in the keratin layers and upper dermal perivascular and interstitial lymphocytic infiltrates consistent with pustular psoriasis. (Figures 1-2).

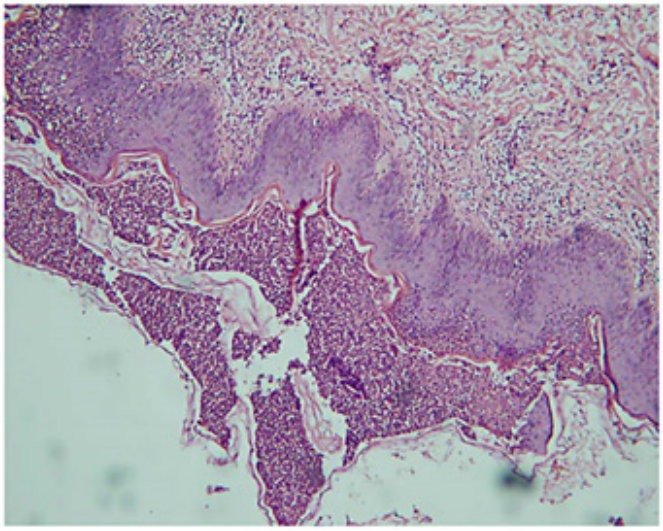

Figure 1: Parakeratosis and irregular acanthosis with subcorneal neutrophil and microabcesses.

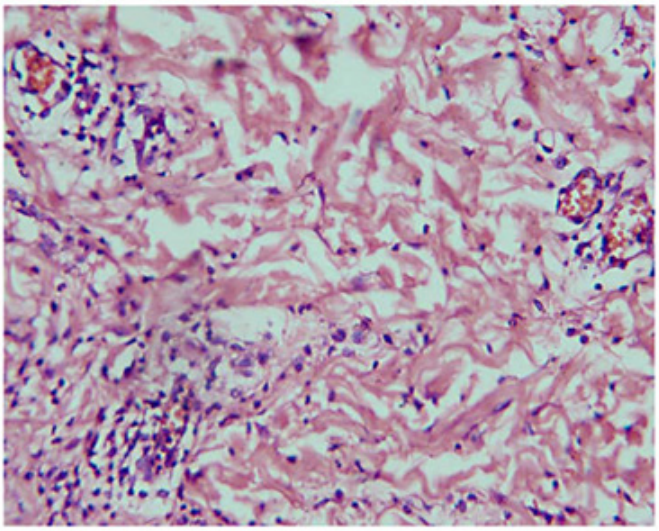

Figure 2: Dilated capillary loops surrounded by lymphocytes, neutrophils and rare eosinophils.

Discussion

Impetigo herpetiformis is a sterile pustular dermatosis commonly seen in the third trimester of pregnancy [4]. It can also be seen during puerperium and in women. It can recur in subsequent pregnancies. The etiology is unknown. Triggering factors include hypocalcaemia, hypoparathyroidism, stress, and bacterial infection [5, 6]. There is a suggestion that it is related to generalized pustular psoriasis of pregnancy. However, most of the patients do not have a personal or family history of psoriasis. The formation of the pustules could be related to an imbalance of the skin elastase and its inhibitors as a result of low levels of skin-derived antileucoproteinase (SKALP) [7].

Impetigo herpetiformis is a rare disorder. It is seen in approximately 4.25% of pregnancy dermatoses [8]. The eruption typically begins in the intertriginous areas and extends centrifugally. The lesions are erythematous patches or plaques with grouped sterile pustules and peripheral scaling. Systemic symptoms including fever, sweating, diarrhea, vomiting, delirium, and tetany can occur [9]. Complications include fluid and electrolyte abnormalities, sepsis, hypocalcaemia, and placental insufficiency, resulting in intrauterine growth retardation, stillbirths, and neonatal deaths. 10 The laboratory findings include leukocytosis, elevated erythrocyte sedimentation rate, hypocalcaemia, hypoalbuminaemia, and low parathyroid hormone levels. The pustules are sterile but can be secondarily infected [10].

The histopathological findings are similar to pustular psoriasis consisting of parakeratosis, acanthosis, subcorneal, and intraepidermal spongiform pustules containing neutrophils, as well as papillary dermal infiltration of lymphocytes and neutrophils [9, 10]. The diagnosis is established by the typical clinical picture, sterile pustules with negative bacteriology test, and typical histopathological changes on skin biopsy [10].

Conclusion

The case had classical features of impetigo herpetiforms. The symptoms of this condition start in pregnancy and resolve postpartum, with risk of recurrence in subsequent pregnancies. The affected pregnancies may have bad outcomes such as stillbirths. Majority of patients respond to corticosteroid treatment and this should be used as first line in patients with impetigo herpetiformis.

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