Resident Forum

A 36-year-old Primigravida in Her 36th Week of Gestation with Generalized Erythematous thin Plaques with Pustular Formation

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CASE REPORT

A 36-year-old primigravida in her 36th week of gestation was admitted to our department with generalized erythematous thin plaques with pustular formation (Fig.1). The skin eruption developed from left axillary region and then spread to the whole body gradually in the past 5 to 6 weeks. She was not taking any medication regularly, nor was there any history of psoriasis or other skin diseases.

There were nummular and polycyclic erythematous thin plaques covered with concentric rows of numerous pin-sized pustules on the peripheral of the plaques. The plaques extended centrifugally by new crops of pustules, and the central older pustules dried with dirty-white scales. Onychodystrophy of the nails and pustules on lip vermilion were also found (Fig. 2).

She was mild fever (38°C) and general malaise on hospitalization with this clinical picture. The blood test showed mild leukocytosis (10150/cu mm) with 86.7% neutrophils, elevated CRP level (96 µg/ml) and hypoalbuminemia (2.3 mg/dl). Bacteriologic examination of the pus was negative. Fetal heart rate monitor and ultrasonographic examination revealed no signs of acute or chronic fetal distress.

The histopathology of the skin biopsy showed spongiotic dermatitis with numerous neutrophils and lymphocytes infiltration among keratinocytes, which formed multilocular intraepidermal and subcorneal microabscesses (Fig. 3&4).
**DIAGNOSIS: Impetigo herpetiformis (IH)**

**DISCUSSION**

Impetigo herpetiformis (IH) is a rare pustular dermatosis and typically occurs during pregnancy, especially late trimester. It is now generally regarded as a generalized manifestation of pustular psoriasis triggered by hormonal alternations in pregnancy.\(^1,^2\) But it is still unclear whether it is a distinct entity or a variant of pustular psoriasis occurring during pregnancy.\(^3\)

From the literature, cases of IH may have been precipitated by hypocalcaemia, hypoparathyroidism, hormonal alterations and bacterial infection.\(^1,^4\) Lesions usually begin as erythematous patches and plaques with superimposed pustules in the inframammary and abdominal area, spread to the inguinal areas and extremities within 7-10 days, and, afterwards, become crusted. The face, palm, and soles are typically spared.

Laboratory finding include leukocytosis, elevated erythrocyte sedimentation rate, and hypocalcaemia that may be related to hypoparathyroidism. Hypoalbuminemia, albuminuria, and hematuria occasionally occur. Some cases in the literature had low serum level of vitamin D, presumed to be related to malabsorption.\(^2\) The pathology is the same as in pustular psoriasis in the nonpregnant patient. Spongiform pustules with neutrophils are observed in the epidermis.

It may be potential life threatening to the mother and the child and is often associated with severe maternal and fetal complications. Placental insufficiency and decreased intervillous blood flow within the placenta may increase the risk of stillbirth.\(^4\) It is often difficult to treat as therapeutic options are limited during pregnancy. Fluid and electrolytes, especially calcium, must be monitored and replaced, because the defective skin and the associated symptoms of diarrhea and vomiting may induce significant dehydration and electrolyte imbalance. Maternal cardiac and renal functions should be monitored, as these can deteriorate with the progression of this disease. Thus, termination of pregnancy is usually the cure for IH. Systemic and local administration of corticosteroids is treatment of choice. Cyclosporin and local PUVA have been reported to be effective treatments in few cases during pregnancy.\(^6,^7\) Besides, etretinate or a combination of oral corticosteroids with etretinate have succeeded in several trials.\(^2\) However, the effect of corticosteroids (40 mg of prednisone daily) to IH was limited in our patient. She decided to terminate the pregnancy by induction on the fifth hospital day and gave birth to a healthy boy without evidence of skin lesions. New pustules appeared despite of continuing corticosteroid therapy. We tried acitretin 50 mg daily to this patient five days after delivery. Her general skin condition improved dramatically after acitretin therapy for 1 week and recovered almost to normal except for mild hyperpigmentation one month after discharge from hospital. Thus, we recommend all the patients of IH be evaluated for the possibility about termination of pregnancy. Before termination of pregnancy, corticosteroid therapy is the first choice of treatment if there is no contraindication existed. If IH is refractory to corticosteroid alone or even after delivery, the administration of acitretin may give additional benefit.

**REFERENCES**