

## Clinic

# Generalized pustular psoriasis of pregnancy

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### Abstract

Generalized pustular psoriasis also called as Impetigo Herpetiformis is a rare eruption occurring in pregnancy characterized by generalized symmetrical grouped pustular lesions associated with constitutional symptoms.

It was first described by Von Hebra. It results in placental insufficiency leading to fetal anomalies, still births and maternal morbidity. Onset of diseases is usually in the last trimester of pregnancy but we are reporting a case which occurred at 9 weeks gestation.

**Key words:** pustular psoriasis, pregnancy

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Generalized pustular psoriasis of pregnancy is known for its typical onset during the last trimester of pregnancy and rapid resolution in the post-partum period. Etiology is not clearly known, but the response to steroids is good. Characteristically the disease recurs in subsequent pregnancies and on subsequent use of oral contraceptives.

### Case report

A 26 year old female at 9 weeks of gestation presented with 8 days history of pruritic erythematous patches and plaques studded with pustular lesions which had started over proximal limbs, in the duration of 7 days had rapidly spread to involve the entire trunk. The lesions were associated with severe burning sensation, fever, headache and vomittings.

There was no personal or family history of psoriasis. The patient was non diabetic and non hypertensive. There was no history of any drug intake and usage of any herbal medication or topical application. The patient was a fourth gravida with three children with no history of similar

symptoms in earlier pregnancies. Gynaecological examination did not reveal any maternal risks or fetal anomalies.

Physical examination revealed widespread erythematous patches and plaques over trunk and limbs studded with tiny grouped pustules (Fig 1).



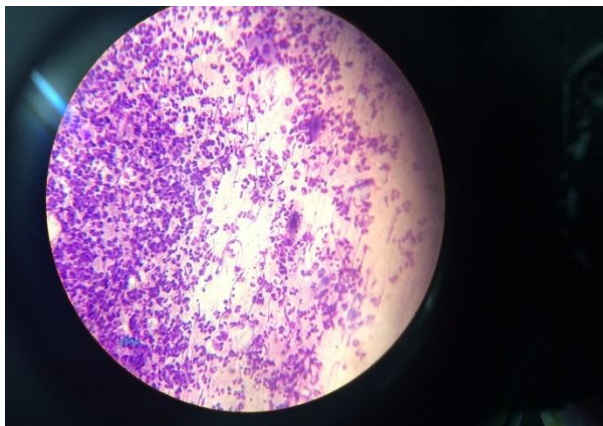
Fig 1. Erythematous patches and plaques over trunk and limbs

Over the back areas of desquamation were noticed with crusting at places (Fig 2).



**Fig 2.** Desquamation were seen with crusting at back

Smears taken from pustules revealed PMN leucocytosis and culture from pustules was sterile (Fig 3).



**Fig 3.** Histology of skin revealed parakeratosis with collections of neutrophils in stratum corneum and lymphocytic infiltration in the upper dermis.

Histology of skin revealed parakeratosis with collections of neutrophils in stratum corneum and lymphocytic infiltration in the upper dermis. Routine investigations of blood and urine showed increased Total leucocyte count of 17,000 cells/cu.mm and raised ESR.

Serum Calcium level was normal and there was mild hypokalemia. A diagnosis of Impetigo Herpetiformis was made based on clinical features, sterile pustular contents and histopathology.

Patient was admitted and IV fluids was administered, supportive measures and systemic steroids at the dose of 60mg/day, along with Azithromycin 250 mg twice daily, after 2 days of treatment the patient started improving and the lesions regressed, the severity of the condition and prognosis was explained to the family including the chances of steroid induced fetal anomalies and the chances of recurrence in the future. The couple preferred to get a MTP done and after the procedure the steroids were gradually tapered to 20 mg/kg/day with addition of cyclosporine 50mg/kg/day.

The condition improved after 3 weeks of cyclosporine use.

### Discussion

Psoriasis is a chronic inflammatory and proliferative condition of skin which is influenced by genetic and environmental factors<sup>1</sup>. Neutrophilic accumulation in epidermis is present in all the forms of psoriasis but the term pustular psoriasis is reserved for the disease in which macroscopic pustules appear. Pustular psoriasis is a type of psoriasis which is classified into two types localized and generalized.

Generalized pustular psoriasis includes acute generalized (Von Zumbusch), generalized pustular psoriasis of pregnancy, infantile pustular psoriasis and circinate pustular psoriasis.

Generalized pustular psoriasis of pregnancy is also called as Impetigo Herpetiformis, it was first described by Von Hebra et al.

It is commonly seen in third trimester of pregnancy<sup>2</sup> but can also occur in puerperium and in non-pregnant females. Exact etiology is not known but it is known to be triggered by hypocalcaemia, hypoparathyroidism, infections and stress. It can also occur in subsequent pregnancies.

It is characterized by grouped pus filled lesions over erythematous macules and plaques.

It begins in intertriginous areas and spreads centrifugally. Systemic symptoms like fever, diarrhea, delirium, tetany are present. Complications include fluid and electrolyte abnormalities, hypocalcaemia, sepsis and placental insufficiency, IUGR, still births and neonatal deaths<sup>3</sup>.

Laboratory findings include leucocytosis, elevated ESR, hypocalcaemia, hypomagnesaemia, low parathormone levels<sup>4</sup>. Culture of pustular contents is sterile. Histopathology is similar to pustular psoriasis with parakeratosis, acanthosis, subcorneal and intraepidermal spongiform pustules containing

polymorphonuclear cells with dermal papillary infiltration of neutrophils and lymphocytes. Diagnosis is suggested by laboratory findings and confirmed by histopathology and sterile neutrophilic pustules.

Treatment of choice during pregnancy is systemic steroids with 30-60 mg of prednisolone per day.

Cyclosporine is used in refractory cases<sup>5</sup>. Methotrexate and retinoids are contraindicated in pregnancy. Antibiotics are used to prevent secondary bacterial infections.

Fluids and electrolytes should be monitored and corrected. Other options include narrow band UVB, PUVA, clofazamine. As the condition is known to recur in subsequent pregnancies with greater severity, counseling of the couple should be done regarding any further decisions.

The rarity of the condition and its onset very early in pregnancy around 8 weeks gestation made us report the case as in most literature it is described in the last trimester of pregnancy.

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**Conflict of interest:** None

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