

# Dramatic Regression of Dermatoses after Delivery

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## Abstract

Atopic eruptions of pregnancy may be sometimes very distressing to mother because of intense itching and aggressive appearing and difficult to manage due to nonresponding to symptomatic treatment but usually regress very well after delivery without any adverse maternal and fetal outcome. We are presenting a case which appeared very virulent antenatally but resolved dramatically after delivery.

**Keywords:** Dermatoses, AEP, prurigo.

## INTRODUCTION

Pregnancy is associated with complex endocrinological, immunological, metabolic, and vascular changes that may influence the skin in various ways.<sup>1</sup> Many of the common dermatoses, such as psoriasis, acne, and alopecia areata, are influenced by pregnancy either for better or worse, but in a somewhat capricious and unpredictable way.

Moreover, several rashes are more specifically associated with pregnancy. None of these can yet be explained in terms of the known hormonal, metabolic, or immunological changes associated with pregnancy. Association of dermatoses with some abnormality of the pregnancy itself or not is also not well understood.<sup>2</sup> Usually symptomatic treatment with counseling and reassurance work efficiently but rarely aggressive lesions are difficult to manage although they resolve dramatically after delivery.

Here we are presenting a case where a lady had intense and aggressive course of dermatoses in antenatal period and relieved rapidly after delivery.

## CASE REPORT

A 27 years old G2P1L1, with previous full-term normal delivery, 2 years back, presented at our hospital on 22nd July 2009 with 34.4 weeks of pregnancy with severe itching and lesions all over body since 15 days. The lesions first appeared on the extensor surfaces of extremities followed by the abdomen. She also gave history of oozing from the lesions from past 2 days.

She did not give history of any drug intake except hematinics and calcium, she also didn't give any history of any insect bite or contact with any type of allergens. All hematological investigations were done along with an ultrasound examination. All investigation appeared to be within normal limits. A dermatological opinion was taken and a diagnosis of eczema was given and the patient was prescribed tab. Avil (anti-histaminic) 1HS for 10 days and Clobetasole gel (steroid) for local application and was discharged on request on 23rd of July 2009 and was counseled to have regular follow-up in the dermatology OPD.

The same patient came in the OPD on 26th August 2009 at 39.3 weeks of pregnancy with complaints of pain in abdomen since that morning. On examination she was afebrile with a pulse rate of 84/min, BP 110/70, Per abdomen her uterus was full term, relaxed, cephalic with head floating, FHS were present and regular at a rate of 140 beats per minute. On per vaginum examination her os was patulous, uneffaced with head above the brim. She had generalized erythematous, excoriated and crusted pruritic papules all over her body, oozing from some papules was present (Figs 1A and B).

All hematological examinations and liver function tests along with neutrophil counts were within normal limits and her ultrasound was corresponding to her dates but showed a loop of cord around her neck. A dermatological opinion was again sought after and a diagnosis of prurigo of pregnancy, query prurigo nodularis, query dermatitis herpetiformis was given. She was prescribed tab. Levotin (antihistaminic) 5 mg OD for 5



**Figs 1A and B:** Acute dermatoses at 34 weeks



**Figs 2A and B:** Progressive regression of antepartum acute dermatoses (prurigo) on 7th postoperative day

days, and Calosoft lotion(emollient) twice application for 15 days.

She was taken up for lower segment cesarean section during emergency hours on 28th August 2009 for cervical dystocia with fetal distress. She delivered a 2.7 kg, female baby at 7:25 pm with mild birth asphyxia but revived well.

Her postoperative period was uneventful and anti-histaminics with local application of emollient was continued. Her prurigo started to regress from 3rd postoperative day and by the 7th postoperative day her lesions and pruritis had reduced to just 25% of initial (Figs 2A and B).

Her sutures were removed on the 8th postoperative day and she was discharged on the 9th postoperative day.

## DISCUSSION

Common skin conditions during pregnancy generally can be separated into three categories: hormone-related, pre-existing, and pregnancy-specific. Normal hormone changes during pregnancy may cause benign skin conditions including striae gravidarum (stretch marks); hyper pigmentation (e.g., melasma); and hair, nail, and vascular changes. Pre-existing skin conditions (e.g., atopic dermatitis, psoriasis, fungal infections, cutaneous tumors) may change during pregnancy. Pregnancy- conditions include pruritic urticarial papules and plaques of pregnancy, prurigo of pregnancy, intrahepatic cholestasis of pregnancy, pemphigoid gestationis, impetigo herpetiformis, and pruritic folliculitis of pregnancy.<sup>3,4</sup>

More specifically they are classified as per Table 1.

Pruritic atopic eruption are the most common of these disorders<sup>5</sup> Atopic eruption of pregnancy (AEP), also known as prurigo of pregnancy, prurigo gestationis, early-onset prurigo of pregnancy, pruritic folliculitis of pregnancy, eczema in pregnancy) is a benign pruritic disorder of pregnancy which includes eczematous and/or papular lesions in patients with a personal and/or family history of atopy and/or elevated IgE levels after exclusion of the other dermatoses of pregnancy.<sup>1</sup> It occurs in approximately 1/300 women, with an onset in the 25th-30th week of pregnancy. Itchy, grouped, excoriated papules develop primarily on the extensor surfaces of the extremities in patients with an atopic diathesis. Although etiopathogenesis of it is still not well-understood.<sup>5</sup> Some altered immunological status like cell mediated immunity may be responsible for it.<sup>6,8</sup> It usually starts early—in 75% before the third trimester—and, due to its atopic background, tends to recur in subsequent pregnancies.<sup>1</sup>

Some dermatoses are distressing only to the mother because of severe pruritis, others are associated with fetal risks including fetal distress, prematurity, and stillbirth,<sup>5,7,8</sup> usually these lesions subside after delivery but may occasionally persist for up to 3 months, flare ups are also reported.<sup>5,7,9</sup> Early diagnosis and prompt treatment is strongly recommended.<sup>1,2,9</sup>

**Table 1:** Classification of the dermatoses of pregnancy<sup>3</sup>

Classification	Synonym(s)
Pemphigoid gestationis(PG)	Herpes gestationis
Polymorphic eruption of pregnancy(PEP)	Pruritic urticarial papules and Plaques of pregnancy Toxic erythema of pregnancy Toxic rash of pregnancy Late onset prurigo of pregnancy
Intrahepatic cholestasis of pregnancy (ICP)	Obstetric cholestasis Cholestasis of pregnancy Jaundice of pregnancy pruritis/prurigo gravidarum
Atopic eruption of pregnancy (AEP)	Prurigo of pregnancy Prurigo gestationis Early onset prurigo of pregnancy Pruritic folliculitis of pregnancy Eczema in pregnancy

The differential diagnosis include other specific dermatoses of pregnancy, pruritic dermatoses unrelated to pregnancy, drug eruptions, arthropod bites, and infestations such as scabies. Omission of possible offenders may then be the only way to reach a diagnosis.

Maternal prognosis is good even in severe cases because skin lesions usually respond quickly to therapy; recurrence in subsequent pregnancies is common. Fetal prognosis is unaffected, but there the infant faces a higher risk of developing atopic skin changes later on.<sup>2-4</sup>

Basic treatment is essential and consists in regular application of emollients, often with urea (3-10%) or antipruritic additives such as menthol or polidocanol. Fortunately most pregnancy prurigos can be adequately controlled by simple measures like rest, administration of trimeprazine or sedatives by mouth, and the application of calamine or oily calamine lotion. A steroid cream should be used when there are superimposed eczematous changes; phototherapy (UVB) is a helpful additional measure and considered safe in pregnancy.<sup>1</sup> Progesterone (norethisterone 10 mg twice a day) has helped some cases. Systemic corticosteroids are only seldom required for the treatment of prurigo in contrast to herpes gestationis and the papular dermatitis of pregnancy.<sup>2</sup>

## CONCLUSION

Dermatoses in pregnancy should never be neglected and should always lead to a precise work-up of the patient. It may be specific dermatoses of pregnancy but it can also be associated with other dermatoses coinciding by chance with pregnancy. These include scabies, pityriasis rosea, drug rashes, and cutaneous infections that, as a first step, should be excluded. In the second step it is highly recommended to differentiate amongst the four specific dermatoses of pregnancy by proper history and localization of skin lesions. In pemphigoid gestationis and intrahepatic cholestasis of pregnancy, specific diagnostic tests such as immunofluorescence and laboratory investigations further confirm the diagnosis. Although lesions may be very distressing to mother and sometimes appear virulent, usually they resolve very well after pregnancy is over hence lots of reassurance and symptomatic antihistaminics and emollients are sufficient, topical corticosteroids are used to treat pemphigoid gestationis and polymorphic and atopic eruption of pregnancy rarely oral corticosteroids may be needed, whereas intrahepatic cholestasis of pregnancy should be treated specifically with ursodeoxycholic acid. Although polymorphic and atopic eruption of pregnancy do not impair maternal or fetal prognosis, pemphigoid gestationis and intrahepatic cholestasis of pregnancy may be associated with fetal risks.

Atopic eruption of pregnancy may be very worrying to mother and difficult to manage but regress very well after delivery and frequently don't have any adverse maternal and fetal outcome.

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