Specific dermatoses of pregnancy

The specific dermatoses of pregnancy are a group of inflammatory skin diseases that result directly from the state of gestation or the products of conception.

Four conditions are included in the specific dermatoses of pregnancy:
- Pemphigoid (herpes gestationis)
- Polymorphic eruption of pregnancy.
- Prurigo of pregnancy.
- Pruritic folliculitis of pregnancy.

Pemphigoid (herpes) gestationis

Pemphigoid gestationis is a rare autoimmune vesicobullous disorder in which the primary immune response takes place within the placenta. It may develop in association with pregnancies from hydatidiform mole or choriocarcinoma.

It has similar clinical, histological and immunological features to those of bullous pemphigoid. It can be distinguished from the other specific dermatoses of pregnancy by its classical clinical features and positive immunofluorescence.

The condition has an incidence of one in 60,000 pregnancies and typically develops in the second or third trimester.

Clinically it presents with severe pruritus with urticated patches of erythema (figure 4) on which blisters arise, often with marked truncal involvement and periumbilical accentuation.

The rash rapidly progresses to a generalised bullous eruption that spares the face, mucous membranes, palms and soles (figure 5).

It runs a course of alternating exacerbations and remissions and tends to become relatively quiescent in the last few weeks of pregnancy, only to flare post-partum in 75% of cases.

In most patients spontaneous remission occurs in the weeks to months after delivery.

The histology in pemphigoid gestationis shows a sub-epidermal blister, papillary dermal oedema, eosinophilic spongiosis and a perivascular inflammatory cell infiltrate with lymphocytes and eosinophils.

Direct immunofluorescence of peri-lesional skin shows a linear deposition of IgG along the basement membrane zone, with concomitant IgE in 23-30% of patients.

The IgG shows preferential binding to the 180kD laminin subunit.

Transplacental transfer of antibodies can cause cutaneous involvement in the neonate, but the disease is usually mild and self-limiting.

Pemphigoid gestationis tends to recur in subsequent pregnancies. While it has been associated with low birthweight and premature delivery, there is no increase in fetal morbidity or mortality.

Corticosteroids are the mainstay of treatment. In mild cases topical steroids and an oral antihistamine may suffice, but most patients require prednisolone 0.5mg/kg daily.

Because post-partum exacerbation of pemphigoid gestationis is so common, the dose of prednisolone should be increased temporarily at this time.

Polymorphic eruption of pregnancy

Polymorphic eruption of pregnancy (PEP) was previously termed pruritic urticarial papules and plaques of pregnancy.

It is the most common of the specific pregnancy dermatoses and it has an incidence of one in 200 pregnancies. PEP is classically seen in primigravidas in the third trimester of pregnancy or, occasionally, post-partum.

The eruption usually begins in abdominal striae, with characteristic periumbilical sparing (in contrast with pemphigoid gestationis, figure 6).

The rash is typically polymorphous with pruritic urticarial papules and plaques most commonly seen, but vesicles, target-like and polycyclic lesions may occur.

The rash spreads to the breasts, buttocks, arms and thighs but usually spares the palms, soles, face and mucosa.

Histology shows a spongiform epidermis and a perivascular chronic inflammatory cell infiltrate. Serological and immunofluorescence tests are negative.

The pathophysiology of PEP is unknown but some authors speculate that rapid abdominal distension in primigravidas may cause damage to connective tissue in the striae and trigger the inflammatory response of PEP.

This is supported by a higher incidence of PEP in women with excessive weight gain and in multiple pregnancies.

Hormonal factors may also be involved. A recent study of women with PEP showed low cortisol levels compared with normal-control pregnant women.

The mean duration of the rash is six weeks and recurrence in subsequent pregnancies is rare.

PEP is harmless to the mother and fetus and, because it is a self-limiting condition, symptomatic treatment is all that is usually required.

Moderately potent topical steroid and oral antihistamines usually control the pruritus and occasionally a short course of oral steroid is necessary.

Prurigo of pregnancy

Prurigo of pregnancy has an incidence of one in 300 pregnancies and has been reported in all trimesters of pregnancy.

The rash consists of itchy papules and nodules (figure 7), most commonly seen on the extensor aspect of the limbs, and is clinically similar to nodular prurigo in non-pregnant women.

It runs a protracted course and usually resolves after delivery but may persist for months post-partum.

The diagnosis of prurigo of pregnancy is usually a clinical one and a skin biopsy is usually not necessary. Serological and immunofluorescence tests are negative.

The cause of prurigo of pregnancy is unknown but some authors believe it arises as a result of pruritus gravidarum in women with an atopic predisposition, and it is more common in women with atopic dermatitis.

It is a benign disorder with no adverse effects on the mother or fetus. Recommended treatment is with oral antihistamines and moderately potent topical steroids.

Pruritic folliculitis of pregnancy

Pruritic folliculitis of pregnancy is a rare pregnancy dermatosis that was first described in 1983.

It presents as an itchy follicular papulopustular rash on the trunk and limbs, typically in the second or third trimester of pregnancy, and resolves within 2-3 weeks of delivery.

In most cases the histological changes are non-specific and consist of excoriations and a perivascular inflammatory cell infiltrate.

An acute folliculitis with perifollicular neutrophilic infiltrate is diagnostic and this is typically sterile.

The origin of pruritic folliculitis of pregnancy is unclear but it has been postulated that it could be a form of hormonally induced acne, although no significant increases in androgens have been found.

The differential diagnosis includes infectious folliculitis and other pruritic dermatoses of pregnancy, including pemphigoid gestationis, polymorphic eruption of pregnancy and prurigo of pregnancy.

Pruritic folliculitis is a self-limiting condition without significant effects on the mother or fetus. Topical steroids and benzoyl peroxide have been shown to be useful treatments.

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[Image of urticulated plaques of erythema in pemphigoid gestationis.]

[Image of typical bullae in pemphigoid gestationis.]

[Image of excoriated papules and nodules on a limb in prurigo of pregnancy.]

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