LECTURE
Progress and New Directions in the Investigation of the Specific Dermatoses of Pregnancy

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Until recently the specific dermatoses of pregnancy were ill-understood and characterized by numerous and rather misleading terminology. In 1983 the following simplified clinical classification of the specific dermatoses of pregnancy was proposed: 1) Pemphigoid “Herpes” Gestationis. 2) Polymorphic Eruption of Pregnancy (PUPPP). 3) Prurigo of Pregnancy (papular dermatitis). 4) Pruritic Folliculitis of Pregnancy. This presentation outlines recent developments in each of these entities.

Pemphigoid “Herpes” Gestationis

Herpes Gestationis is an intensely pruritic bullous disorder that may develop in association with pregnancy, trophoblastic tumours, choriocarcinoma and hydatidiform mole. It is an extremely rare condition which occurs in only 1 out of 40,000 pregnancies and tends to appear in the second and third trimesters or the puerperium. Clinically and immunopathologically herpes gestationis is closely related to the pemphigoid group of bullous disorders. Therefore, we proposed that the term “pemphigoid gestationis” was more appropriate.

Abnormal expression of major histocompatibility complex (MHC) class II molecules in the placentae of patients with pemphigoid gestationis evokes a local alloreactive reaction by such patients' immune systems against the foeto-placental unit, triggering an autoimmune response against a placental matrix antigen. This antigen is a normal basement membrane constituent of both skin and amnion. In the skin, it has been identified as a 180 kD epidermal protein. It may be found in the human placenta from early in the second trimester of pregnancy onwards.

The autoantibody response in patients with pemphigoid gestationis leads to tissue damage as a consequence of complement deposition and activation in the skin. The fetal risks in pemphigoid gestationis have recently been assessed and show a clear tendency for premature delivery to be associated with the condition.

The treatment of pemphigoid gestationis is always difficult with systemic corticosteroids being the mainstay. Recently use of luteinising hormone releasing hormone analogues has proved beneficial in a longstanding case of pemphigoid gestationis. The treatment induces a reversible chemical oophorectomy.

Polymorphic Eruption of Pregnancy (PUPPP)

Polymorphic eruption of pregnancy is the most common of the gestational dermatoses affecting one in 160 pregnancies. Its etiology has not been established, but may develop as a consequence of damage to connective tissue in striae. In twin pregnancies the condition may be more severe. It has no association with pre-eclampsia, atopy, autoimmune disorders or pemphigoid gestationis. The fetal prognosis is normal. Patients are usually primagravida and the eruption begins in the last trimester or immediately postpartum. Although the initial lesions consist of urticarial papules, the eruption may also include vesicles, target lesions, polycyclic wheals, and, when widespread, it resembles a toxic erythema. As it resolves it develops an “eczematous” appearance. The varied morphology of this disorder frequently leads to incorrect diagnoses such as drug eruption, erythema multiforme, scabies, or mild pemphigoid gestationis. The mean duration of the eruption is 6 weeks, although it is rarely severe for more than 1 week. In view of the self-limiting nature of the condition, symptomatic treatment is all that is usually required. In view of the wide range of clinical expression, the term “polymorphic eruption of pregnancy” is more appropriate than the various other names that have been applied to this eruption. Moderately potent topical corticosteroid...
creams are helpful to relieve the pruritus, but in severe
cases, a short course of oral prednisolone is effective and
safe.7

**Prurigo of Pregnancy**8,9

Prurigo of pregnancy affects about one in 300 preg-
nancies, with an onset about 25 to 30 weeks gestation.
The lesions are discrete, itchy excoriated papules, most
commonly on the extensor surfaces of the limbs. Treat-
ment is entirely symptomatic. It is postulated that prurigo
of pregnancy might simply be the result of pruritus
gravidarum occurring in women with an atopic diathesis.

There are no materno-fetal risk complications.

Papular dermatitis of pregnancy (Spangler)10 was orig-
inally distinguished on the basis of more widespread
lesions and elevated human chorionic gonadotrophin
(HCG) levels, low serum estrogen and cortisol levels
with an associated fetal mortality of up to 30%.9

We have recently measured serum HCG, cortisol,
estradiol, androgens and urinary HCG levels in a large
prospective study of polymorphic eruption of pregnancy,
prurigo of pregnancy including those cases that might
have been designated as papular dermatitis of pregnancy.11
Only 3 of 75 cases had elevation of serum and urinary
HCG, but estradiol levels were either normal or increased.
No adverse fetal outcome was encountered. We con-
cluded that papular dermatitis is not a separate entity
and that pruritic papular dermatoses do not have an
unfavourable outcome as Spangler10 suggested.

**Pruritic Folliculitis of Pregnancy**12

Pruritic Folliculitis of Pregnancy may not be un-
common, and could be a form of hormonally induced
acne rather than a specific dermatosis of pregnancy.

Topical applications of 10% Benzoyl Peroxide with 1%
hydrocortisone cream are helpful.

Much more about the above and effects of pregnancy
on other skin disorders can be found in the comprehensive
Color Atlas and Text of Obstetric and Gynecologic
Dermatology recently published.13

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