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RESIDENT ROUNDS: PART II

Dermatoses of Pregnancy

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INTRODUCTION

The dermatoses of pregnancy are a group of skin conditions with variable presentations and distinguishing features. Differentiating among them becomes important as some may affect the outcome of the pregnancy and therefore the safety of mother and fetus. Below is a review of the dermatoses of pregnancy as well as normal physiologic changes of the skin that occur during pregnancy.

Most Important to Differentiate Between:		
	Pemphigoid Gestationis	**Polymorphic Eruption of Pregnancy**
Incidence	1:2,000-1:50,000	1:160-1:200
Pathogenesis	IgG1 autoantibody against BPAg2 (collagen XVII) non- collagenous segment	Unclear Hypotheses: stretching of abdominal skin leads to damaged connective tissue and an allergic-type reaction
Predisposing factors	HLA DR3, DR4	Primigravid women Increased maternal weight gain and multiple-gestation pregnancies
Clinical features	3rd trimester or postpartum Intense pruritus followed by urticarial plaques and eventually blisters Starts periumbilically and then generalizes Flares postpartum in 75% Spontaneous remission in weeks-months following delivery	Last weeks of 3rd trimester or postpartum Pruritic, erythematous and edematous papules Start in abdominal striae and spare periumbilical area Spreads in days Develop polymorphic lesions (targetoid, vesicular, eczematous) Resolve in 4 weeks
Histopathology	Subepidermal bulla with eosinophils Direct immunofluorescence: linear deposition of C3 along basement membrane zone (100%) and linear IgG (30%)	Nonspecific Direct immunofluorescence: nondiagnostic
Recurrence	Recurs in subsequent pregnancies Usually earlier and more severe	Unlikely
Risk to pregnancy	Increased risk of prematurity and small for gestational age, correlating with disease severity	None
Newborn skin involvement	In 10%, due to passive transfer of maternal antibodies	Not reported
Other facts	Rarely reported with trophoblastic tumors Can flare with menstruation and oral contraceptives	Previously called pruritic urticarial papules and plaques of pregnancy (PUPPP) or toxic erythema of pregnancy

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Other Dermatoses of Pregnancy		
	Intrahepatic Cholestasis of Pregnancy	**Atopic Eruption of Pregnancy**
Incidence	Varies geographically and ethnically Highest in Bolivia and Chile (9%-16%) Uncommon in Europe and North America (0.5%-1.5%)	Most common pruritic disorder of pregnancy May be as high as 1:
Pathogenesis	Increased serum bile acids (due to decreased excretion) which can cross the placenta and cause fetal anoxia	Reduced Th1 cytokine profile and shift toward Th2 cytokine production worsens the skin involvement in atopic prone individuals
Predisposing factors	Multiple gestations pregnancies Mutation in genes encoding bile acid transporters (ie, ABCB4) Hepatitis C	Atopy
Clinical features	3rd trimester Intense generalized pruritus Begins on palms and soles Extensor extremities, buttock, abdomen most severe No primary skin lesions; excoriations or prurigo nodules Jaundice in 10% Resolves spontaneously with delivery	75% before the 3rd trimester (earlier than most other dermatoses of pregnancy) Majority (2/3) present with atopic skin changes in classic sites: face, neck, flexures; others (1/3) present with a papular eruption on trunk and extremities
Histopathology	Nonspecific	Spongiosis, acanthosis, and erosions
Recurrence	Recurs in 45%-70% Can recur with oral contraceptives	Common
Risk to pregnancy	Increase in prematurity, intrapartum fetal distress, and fetal loss (1%-2%) Highest when serum bile acids > 40 µmol/L	None
Newborn skin involvement	None	Not reported
Other facts	Other names: prurigo gravidarum Serum transaminases may be normal in 30% Treat with ursodeoxycholic acid	Other names: prurigo of pregnancy, pruritic folliculitis of pregnancy Serum IgE levels mildly elevated in 70%

Normal Physiologic Changes of Pregnancy	
Pigmentary	Hyperpigmentation (linea nigra, areoalae) Melasma develops and worsens
Hair	Hirsutism: regresses postpartum Postpartum telogen effluvium Postpartum androgenetic alopecia may resolve postpartum
Nail	Subungual hyperkeratosis Distal onycholysis Transverse bands Brittleness
Glandular	Increased ecrrine and sebaceous gland function Decreased apocrine gland function
Connective tissue	Striae distensae in 90% of patients
Vascular	Spider angiomas Palmar erythema Varicosities Gingival hyperemia or hyperplasia Pyogenic granulomas Hemorrhoids

DISCLOSURES

The authors have no relevant conflicts of interest to disclose.

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