Pregnancy Dermatoses

A review of the physiologic and pathologic skin changes of pregnancy

Allison Darland, MD
Clinical Lecturer, Michigan Medicine Department of Dermatology
Conflicts of Interest

- I have no conflicts of interest to disclose
Objectives

- Recognize the physiologic skin changes of pregnancy
- Describe the inflammatory skin diseases of pregnancy
- Identify which pregnancy dermatoses pose a potential risk to the mother and fetus
Outline

- Normal or expected skin changes seen in pregnant women
  - Pigmentary
  - Hair and nails
  - Vascular
  - Connective tissue
- Pregnancy dermatoses including the following:
  - Atopic eruption of pregnancy
  - Pemphigoid gestationis
  - Polymorphic eruption of pregnancy
  - Intrahepatic cholestasis of pregnancy
  - Pustular psoriasis of pregnancy
Physiologic Skin Changes of Pregnancy
Physiologic Skin Changes of Pregnancy

- Skin changes are common in pregnancy and the majority regress following delivery
Physiologic Skin Changes of Pregnancy

• Pigmentary
  – Hyperpigmentation of the areolae
  – Linear nigra
  – Melasma
Physiologic Skin Changes of Pregnancy

- Hair and nails
  - Hirsutism
  - Postpartum telogen effluvium and androgenetic alopecia
  - Brittle nails
  - Onycholysis and subungual hyperkeratosis
Physiologic Skin Changes of Pregnancy

• Vascular
  – Spider angiomas
  – Palmar erythema
  – Varicosities
  – Hemorrhoids
  – Pyogenic granulomas
Physiologic Skin Changes of Pregnancy

• Connective tissue
  – Striae
Pregnancy Dermatoses
Case 1

- 32 yo G3P2 at 14w
- Presents with erythematous scaly pruritic plaques on the trunk and flexural aspects of the extremities
- Has occurred with her previous two pregnancies as well
- No PMHx of eczema
- Otherwise feels well
Case 1
Atopic Eruption of Pregnancy

- Most common pruritic disorder of pregnancy
- Occurs earlier than other pregnancy dermatoses, commonly in the first or second trimester
- Often presents with classic atopic dermatitis features, but may also present with a papular eruption or prurigo-like changes
- Most have no PMHx of eczema
Atopic Eruption of Pregnancy

• No risk to the mother or fetus
• Treatment options include topical steroids, moisturizers, antihistamines, and phototherapy (nbUVB)
• Usually *recurs* with future pregnancies
Case 2

- 28 yo G1P0 at 32w
- Abrupt onset of pruritic papules and plaques, some of which are forming blisters
- Lesions located on the trunk (including periumbilical abdomen) and proximal extremities
- Otherwise feels well
Case 2
Pemphigoid Gestationis

• Rare, self-limited, autoimmune blistering disease
• Occurs later in pregnancy (second or third trimester) or immediately post-partum
• Presents with pruritic papules and plaques that eventually become vesicles and bullae
• Lesions are most commonly found on the trunk, including the periumbilical abdomen
• Biopsy for H&E and DIF for diagnosis
Pemphigoid Gestationis

- Risks to fetus include **prematurity** and **being small for gestational age**
  - Risk correlates to disease severity
- ~10% of newborns will have pemphigoid skin lesions
- Associated with risk of Graves’ disease in the mother
- Treatment options include topical and systemic steroids, IVIG
  - Typically resolved after delivery (may take weeks to months)
- Typically **recurs in future pregnancies** ("skip pregnancies" have been reported); also may recur with **menses, OCPs**
Case 3

- 24 yo G1P0 at 36w
- Presents with pruritic papules, many right within her striae
- Patient has had significant weight gain during current pregnancy
- Otherwise feels well
Case 3
Polymorphic Eruption of Pregnancy

- Common pregnancy dermatosis, formerly known as “PUPPP”
- Occurs later in pregnancy than other dermatoses, usually third trimester
- Increased risk in primiparous women, multiple gestation pregnancies, excessive weight gain
- Presents with pruritic urticarial papules and plaques within the striae, with lesions spreading over days
- Half of patients will develop polymorphous lesions
Polymorphic Eruption of Pregnancy

- No risk to fetus or mother
- Treatment options include topical steroids and antihistamines
- Does not recur
Case 4

- 31 yo G1P0 at 33w
- Presents with extreme itching without skin lesions
- Symptoms worse at night and most severe on her palms and soles
Intrahepatic Cholestasis of Pregnancy

- Rare, hormone dependent, reversible form of cholestasis
- Occurs in the third trimester
- Presents with extreme generalized pruritus, worse at night and most severe on the palms and soles
- Patients may present with excoriations for scratching, but there are no primary skin lesions
- Serum bile acids are elevated (>11umol/L)
Intrahepatic Cholestasis of Pregnancy

• Risks to **fetus** include prematurity, intrapartum fetal distress, and still birth
  – Risks significantly increased with bile acid levels >40umol/L
• Risks for mother include steatorrhea leading to vitamin K deficiency and subsequent **postpartum hemorrhage**
• Treatment options include ursodeoxycholic acid
• Pruritus resolves following delivery
• May **recur with future pregnancies and OCPs**
Case 5

• 29 yo G1P0 at 31w
• Presents with red plaques and small pustules that have spread rapidly all over the body
• There is mild pruritus
• Patient is febrile and ill appearing
Case 5
Pustular Psoriasis of Pregnancy

- Rare pregnancy dermatosis, also known as “impetigo herpetiformis”
- Histologically indistinguishable from other pustular psoriasis
- Occurs in the third trimester
- No history of psoriasis
- Presents with generalized pustular psoriasis, starting in the groin folds and spreading throughout the body
- Patients may be ill-appearing, febrile, dehydrated, tachycardic, etc
- Associated with leukocytosis and hypocalcemia
Pustular Psoriasis of Pregnancy

- Risks to fetus include **placental insufficiency, still birth, and neonatal death**
- Risk to mother include **cardiac and renal failure**
- Treatment includes supportive care, systemic steroids, TNF inhibitors, cyclosporine
- Resolves with delivery but **recurs with pregnancy and with use of OCPs**
Other Rashes in the Pregnant Patient

• Don’t forget about common things...
  – Folliculitis
  – Contact dermatitis
  – Intertrigo
  – Tinea
  – Connective tissue disease
  – Drug rashes
  – Scabies
  – Hypersensitivity reactions
  – Etc
Summary of Pregnancy Dermatoses

• Pruritus is a common feature

• Keep key distinguishing features in mind when evaluating your patient
  – Type of skin lesion present
  – How far along in pregnancy when symptoms started
Summary of Pregnancy Dermatoses

Rash present?

- No
- Yes

How far along in pregnancy?

- First trimester
  - Atopic eruption of pregnancy
  - Blistering lesions, periumbilical lesions
  - Pemphigoid gestationis

- Second or third trimester
  - Red plaques with small pustules in an ill-appearing patient
  - Edematous papules and plaques in the striae
  - Polymorphic eruption of pregnancy

Pustular psoriasis of pregnancy

Intrahepatic cholestasis of pregnancy
Summary of Pregnancy Dermatoses

- **Atopic eruption of pregnancy**
  - Occurs early in pregnancy (first trimester)

- **Pemphigoid gestationis**
  - Blistering skin lesions
  - Periumbilical lesions

- **Polymorphic eruption of pregnancy**
  - Lesions in the striae
  - Spares periumbilical abdomen
  - Primiparous women, does not recur

- **Intrahepatic cholestasis of pregnancy**
  - Pruritus without primary skin lesions

- **Pustular psoriasis of pregnancy**
  - Small pustules over erythematous plaques
  - Patient may appear ill

- **Risk to mother and fetus**
  - Pemphigoid gestationis
  - Intrahepatic cholestasis
  - Pustular psoriasis
Questions?