Pregnancy-Associated and Other Dermatoses of Young Women

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No Disclosures

• I have no financial interest or other conflict of interest in relation to this program
• I have no relevant financial relationships to disclose

Objectives

• Recognize the most common dermatoses of pregnancy
• Recognize other dermatoses affecting women of child-bearing age
• Discuss both maternal and fetal outcomes for each pregnancy dermatosis
• Describe treatment options for the various pregnancy dermatoses
Specific Pregnancy Dermatoses:

1. **Polymorphic Eruption of Pregnancy** *(PUPPP, toxemic rash of preg, toxic erythema of preg, late-onset prurigo of preg)*
2. **Pemphigoid Gestationis** *(Herpes gestationis, Gestational pemphigoid)*
3. **Atopic Eruption of Pregnancy** *(prurigo of pregnancy, prurigo gestationis, early-onset prurigo of pregnancy, papular dermatitis of pregnancy, pruritic folliculitis of pregnancy, eczema of pregnancy)*
4. **Intrahepatic Cholestasis of Pregnancy** *(Obstetric cholestasis, cholestasis of pregnancy, jaundice of pregnancy, prurigo gravidarum)*
5. **Impetigo herpetiformis** *(pustular psoriasis)*

Table I: Differences in the clinical characteristics among the pruritic dermatoses of pregnancy *(n = 401)*

<table>
<thead>
<tr>
<th></th>
<th>Total (n = 401)</th>
<th>PUPPP (n = 40)</th>
<th>APG (n = 29)</th>
<th>APG (n = 25)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pruritus, n (%)</td>
<td>10 (4)</td>
<td>7/9 (9)</td>
<td>11/13 (4)</td>
<td>7/4 (2)</td>
</tr>
<tr>
<td>Multiple gestations</td>
<td>0</td>
<td>0</td>
<td>2/1 (1)</td>
<td>0</td>
</tr>
<tr>
<td>Pregnancy-related pruritus, n (%)</td>
<td>1/11 (9)</td>
<td>2/3 (6)</td>
<td>4/8 (50)</td>
<td>2/1 (100)</td>
</tr>
<tr>
<td>Early onset (&lt;31 weeks of gestation), n (%)</td>
<td>6 (22)</td>
<td>3 (100)</td>
<td>19/11 (72)</td>
<td>3 (100)</td>
</tr>
<tr>
<td>Mean onset ± SD (weeks of gestation)</td>
<td>28 ± 7 (14-38)</td>
<td>34 ± 5 (17-45)</td>
<td>18 ± 0.2 (26)</td>
<td>30 ± 5 (24-36)</td>
</tr>
<tr>
<td>Location abdominal involvement, n (%)</td>
<td>20 (55)</td>
<td>197 (96)</td>
<td>173 (64)</td>
<td>3 (100)</td>
</tr>
<tr>
<td>Morphology only</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>15 (100)</td>
</tr>
<tr>
<td>Fluctuation of skin lesions, n (%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>15 (100)</td>
</tr>
<tr>
<td>Presenting symptoms, n (%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>15 (100)</td>
</tr>
</tbody>
</table>

*APG, Atopic eruption of pregnancy (desquamative exanthema in pregnancy, and the former entity of pustular pregnancy and pruritic folliculitis of pregnancy); AP, polymorphic eruption of pregnancy; PC, pemphigoid gestationis.

*(Excludes) in multigravid women only.*
Polymorphic Eruption of Preg

Epidemiology:
• Primiparous woman
• 1:160 deliveries
• In multiple gestations
• Does not usually recur

Onset:
• Late (3rd Trimester)

Description:
• Plaques, papules, and microvesicles on thighs and abdomen

Labs:
• None

Treatment:
• Top Steroids, Prednisone

Resolution:
• Resolves 7-10 days after delivery
• No fetal consequences

Polymorphic eruption of Preg

Labs:
• None

Treatment:
• Top Steroids, Prednisone

Resolution:
• Resolves 7-10 days after delivery
• No fetal consequences
Pemphigoid Gestationis

Epidemiology:
- 1:50,000 pregnancies

Onset:
- 2nd to 3rd trimester

Description:
- Plaques, vesicles, bullae, spares striae, involves periumbilical area

Treatment:
- Top Steroids, Prednisone

Diagnostic Confirmation:

“BP” ELISA Mayo send out.
Serum bullous pemphigoid antibodies 1 and 2 generally elevated.

Biopsy for direct IF (perilesional) in saline or Michel’s (Zeus) media.
Pemphigoid Gestationis

Follow-Up:

- 10% infants with bullae, SGA (IgG1 antibody crosses placenta)
- Typically will flare with subsequent pregnancies
- May flare at delivery, subsequent menstrual cycles, with OCPs

** Patients need to be followed for Graves Disease.
** HLA DR3, 4, association.

Atopic Eruption of Pregnancy

Incidence:
- Most common pregnancy dermatosis

Diagnosis:
- Non-specific pathology, normal LFTs & bile acids
- 20% have pre-existing atopic dermatitis
- Presents earlier in pregnancy

Treatment: Top Steroids
Cholestasis of Pregnancy

Occurrence:
- Generally, 3rd trimester

Description:
- Pruritus, excoriations +/- jaundice (10%)

Diagnosis:
- Check conjugated bili, serum bile acids most specific

Treatment:
- Narrow-band UVB light therapy, ursodeoxycholic acid

Consequences:
- Meconium staining, abnormal tracing
- Premature labor in 20-60% of patients
- Fetal mortality 1-2%
Impetigo Herpetiformis

Pustular psoriasis of pregnancy

- Psoriasis generally improves during pregnancy but may flare.
- Not triggered by infections etc.
Impetigo Herpetiformis

Look for thin pustules that coalesce into lakes of pus to develop on a base of erythema.

Treatment: Cyclosporine.

<table>
<thead>
<tr>
<th>Previous history</th>
<th>PEP</th>
<th>PG</th>
<th>Prurigo of Preg</th>
<th>Cholestasis</th>
<th>Impetigo Herpetiformis</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>+ in Preg Preg</td>
<td>Atopic Derm, General Derm</td>
<td>+ in prev pregnancies</td>
<td>Psoriasis or Fam hx of Psoriasis</td>
<td></td>
</tr>
<tr>
<td>Early vs Late</td>
<td>Late</td>
<td>Mid-Late</td>
<td>Early</td>
<td>Late (variable)</td>
<td>-</td>
</tr>
<tr>
<td>Phys Exam</td>
<td>Papules, plaques in STRIAE, no bullae</td>
<td>Plaques, microvesiculations, bullae, umbilicus</td>
<td>Lichenification, Excoriations</td>
<td>Jaundice +, pruritus without findings</td>
<td>Thin pustules, may coalesce</td>
</tr>
<tr>
<td>Labs:</td>
<td>-</td>
<td>+ BP ELISA</td>
<td>-</td>
<td>+ Bilirubin + Bile Acids</td>
<td>Hypocalcemia</td>
</tr>
<tr>
<td>Pathology</td>
<td>DIF is specific</td>
<td>DIF is specific</td>
<td>-</td>
<td>H&amp;E may be specific</td>
<td>-</td>
</tr>
<tr>
<td>1st Treatment</td>
<td>Top Ster</td>
<td>Top Ster</td>
<td>Top Ster</td>
<td>Light therapy</td>
<td>Cyclosporine, top steroids if limited</td>
</tr>
</tbody>
</table>

The specific dermatitis of pregnancy revisited and reclassified: I study

| Table II. Visceral skin disease occurring with pregnancy observed in this study (n = 104) |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Inflammatory disease | 54 (52%) | Reactions | 14 (13%) |
| Urticaria | 18 (17%) | Heat reaction (urticaria) | 14 (13%) |
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| Allergic eczema | 9 (9%) | Heat reaction (urticaria) | 14 (13%) |
| Acne | 6 (6%) | Heat reaction (urticaria) | 14 (13%) |
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| Acute folicular keratosis | 5 (5%) | Heat reaction (urticaria) | 14 (13%) |
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Inflammatory Skin Diseases

Pityriasis Rosea:
Likely viral reaction – HHV6, 7.

Resolves on its own 4-6 weeks. Look for Herald Patch and papulosquamous (red scaly) plaques following relaxed skin tension lines on trunk
Plaque Psoriasis

Most common type
Elbows, Knees, Scalp, Sacrum, Fingernails, Widespread
May itch
Mild disease on elbows and knees will often respond to topical steroids.
Generally improves during pregnancy.
Inverse Psoriasis
Can be subtle as the only type without scale. The maceration and skin on skin contact prevents the silver coloration.
As opposed to intertrigo, sharply well defined, raised, macerated plaques.
Treatment: Low-potency topical steroid, Tacrolimus ointment.

Atopic Dermatitis (AD)
The prevalence of AD is between 15-20% of toddlers and school aged children but decreases with age.
There is an association with the atopic triad:
Atopic dermatitis
Asthma
Allergic rhinitis
There is a defect in skin barrier function and a relative deficiency in lipid ceramide.

Psoriasis ↔ Atopic Dermatitis
Treatment of Atopic Dermatitis (AD)

Moisturization (most important)

Avoid triggers (food allergens, infections, airborne allergens)

Antihistamines

Topical steroids

Contact Dermatitis

Type 4 hypersensitivity reaction:
When substance contacts the skin, rash develops 8-48 hours later
Rash lasts 7-28 days
Very, very itchy
Treatment:
Avoidance of substance
Oral or topical steroids for flares
Contact Dermatitis – Nickel

Most common cause of chronic allergic contact dermatitis (up to 10% or more of the population)
More common if ears pierced
Common sources of exposure:
- Jewelry (earrings, watches, etc)
- Clothing (belts, snaps, rivets, etc)
- Coins, Keys, Eyeglasses
Coating items with nail polish not much help
Internet for sources of nickel free jewelry

Contact Dermatitis – Fragrance and Preservatives

Face, Neck, Hands
Common exposures:
- Shampoo, soap, conditioner, hair products, moisturizer, perfume, deodorant, baby/diaper wipes
Very difficult to avoid these substances as even products that say “hypoallergenic” or “dermatologist tested” often have fragrances
Allergic patients only react to some fragrances and preservatives
Contact Dermatitis - Neosporin

Very common, up to 10% of the population is allergic

Both Neomycin (most common cause of allergic contact dermatitis from topical medications) and Bacitracin
**Tinea Versicolor**

Scrape for scale, generally on upper body. Treat with pyrithione Zinc otc shampoo tiw to body. Fluconazole if severe.

**Tinea Corporis**

Annular and Acruate plaques with central clearing. Look between toes for confirmation.

Treat with ciclopirox 0.77% cream (B), Clotrimazole 1%, or terbinafine 1% cream (B).
Ask about known triggers. If none pinpointed, titrate cetirizine to 20 mg daily. Can start H2 blocker as well. If no improvement, refer to derm, can consider further immunosuppression.

Urticaria

- Itchy, evanescent, and transient wheels
- **If greater than 24 hrs in one place, it is not urticaria!!**
- Common causes include strep infections, drugs, hymenoptera envenomations (wasp/bee stings)
- Never scaly
- Titrate antihistamines for treatment.

Acne in pregnancy:

Azelaic Acid (Finacea) – Class B
Clindamycin lotion – Class B
Benzoyl Peroxide, Sal Acid – Class C
Avoid topical retinoids

Orals:
Cephalexin
TMP/SMX

Hidradenitis Suppurativa

Underrecognized autoinflammatory disease
Affects up to 1% of population.

Strictly involves intertriginous skin with recurrent nodules, pustules, sinus tracts, scarring, purulence and malodor.

Hidradenitis Suppurativa

Treatments:

Topical acne treatments
Weight Loss
Chronic Antibiotics (Doxycycline 100 mg, clinda/rifampin if not pregnant)
Excision and skin grafting

??Adalimumab, infliximab?? Needs referral to dermatology.
Melanocytic Nevi (Melanoma)

- Pigment darkening normal in pregnancy – estrogen receptor on melanocytes.
- If all nevi changing, would defer to after pregnancy
- If one nevus is changing, evaluate compare to baseline or “signature nevus” and if significantly different, would recommend biopsying.
- Forget the ABCDE, look for “ugly-duckling sign.”
Circle of Hebra

Location, Location, Location
- Interdigital webs,
- Wrist,
- Antecubital Fossa
- Axilla,
- Breasts
- Penis

Scabies

- Permethrin 5 % (B) neck down, overnight.
- Wash bedclothes in AM.
- Everyone in house needs treated or will reoccur.

http://www.kissesforkatie.org/HealthcareProfess
Arthropod:

Look for discrete papules “breakfast, lunch, dinner.”

Very itchy although others in household may not itch.

Treatment: Identify arthropod

The many faces of Lichen Planus

Numerous Types:
- Oral
- Nail
- Annular
- Hypertrophic
- Lichen Planopilaris (Scalp)

Suspected Viral Reaction. Oral disease has an association with hepatitis C.
Lichen Planus – Classic

Lichen Planus – Koebnerization

Factitial Disease:
Autoimmune Progesterone Dermatitis

Luteal phase recurrent skin or mucosal disease.

Polymorphous, can be solely mucosal.

May occur from depo-provera.

Introduction to Topical Steroids:

Low: Hydrocortisone 2.5%

Medium: Body – Triamcinolone 0.1%

High Potency: Body, thick plaques – Clobetasol 0.05%
How safe are topical steroids?

<table>
<thead>
<tr>
<th>Amount of Treatment</th>
<th>No. of Patients</th>
<th>Risk Odds Ratio (95% CI)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-100 mg</td>
<td>1</td>
<td>1.01 (0.59-1.74)</td>
<td>.96</td>
</tr>
<tr>
<td>101-500 mg</td>
<td>1</td>
<td>1.01 (0.52-1.93)</td>
<td>.96</td>
</tr>
<tr>
<td>&gt;501 mg</td>
<td>1</td>
<td>1.01 (0.52-1.93)</td>
<td>.96</td>
</tr>
</tbody>
</table>

Table 2. Exploratory Analysis on the Amounts of Strong Topical Corticosteroids and Risk of Low Birth Weight

*Abbreviations: P* - Probability

Thank you!