Disclosures

I have no actual or potential conflicts of interest in relation to this program and presentation.
Photodermatoses

Outline

• Photo-induced and photo-exaggerated dermatoses
  • Polymorphic Light Eruption
  • Actinic Prurigo
  • Hydroa Vacciniforme
  • Chronic Actinic Dermatitis
  • Solar Urticaria
PMLE

• Most common of the photodermatoses

Onset: Non-scarring, pruritic, erythematous papulovesicles develop on exposed skin minutes to hours after UVR exposure

Course:

• Days to weeks, delayed-type hypersensitivity
• Spring/early Summer
• Juvenile Spring Eruption- Young Boys on helix of ear
PMLE
PMLE

Diagnosis:

- Superficial & deep perivascular infiltrate, composed primarily of T-cells
- Papillary dermal edema, sometimes leading to bulla formation
- Interface dermatitis is absent
PMLE Differential

LE: (-) ANA/anti-Ro/La antibodies
EPP: PMLE is not painful; (-) RBC protoporphyrin levels
EM: No interface dermatitis on path
Solar urticaria: shorter time course (1-2 hours)
PMLE

Treatment:
- UV protection
- Prophylactic low-dose UV sensitization x 4-6 wks

Other meds:
- Antimalarials
- Beta-carotene
- Potent topical corticosteroid
- Oral steroid burst at onset
- Niacinamide (with zinc)
Actinic Prurigo

Synonyms:
• Hutchinson's summer prurigo
• Familial PMLE of American Indians

Onset/Course:
• Erythematous papulonodules w/ hemorrhagic crusts on exposed sites,
• Cheilitis and conjunctivitis are common in native American sufferers but otherwise rare
• Healed facial lesions may leave minute linear or pitted scars
Actinic Prurigo

Actinic Prurigo

Diagnosis:

- Early acanthosis, spongiosis, perivascular infiltrate & edema; later w/ crusts, lichenification
Actinic Prurigo

Treatment:

- Similar to PMLE with photoprotection, sunscreens, NB-UVB hardening
- Thalidomide (50-100 mg qhs) for very resistant disease…then adjusted to lowest possible dose for maintenance
- Niacinamide
Hydroa Vacciniforme

- **Onset:** Childhood, often resolving later in life
- **Course:**
  - Intermittent clustered, pruritic or burning erythematous macules
  - Followed by tender papules & coalescent hemorrhagic vesicles & bullae with scarring
  - All exposed sites (face and dorsal hands)
  - Appears within hours of summer sunlight
Hydroa Vacciniforme

**Diagnosis:**
- Histology is pathognomonic
- Prominent keratinocyte degeneration
- Intraepidermal vesicles
- Epidermal & dermal necrosis
Hydroa Vacciniforme

Treatment:

• Hydroa vacciniforme is almost always refractory
• Restriction of UVR exposure, broad-spectrum sunscreens and clothing until remission eventually develops in most cases
• In those patients with more severe disease, courses of low-dose, broad- or narrow-band UVB phototherapy or PUVA administered as for PMLE may occasionally help
Chronic Actinic Dermatitis

• **Onset**: older men w/ Fitz 1, more severe during the summer

**Course:**
- Persistent pruritic UV-light evoked eczema of the uncovered and to a lesser extent covered skin
- Probably represents a DTH response against photo-induced endogenous allergen
- Clinically resembles allergic contact dermatitis to exogenous allergens (airborne, sunscreens, plants)
- Both broad-spectrum and monochromatic radiation are causative at levels far below MED
Chronic Actinic Dermatitis
Chronic Actinic Dermatitis

**Diagnosis:**
- Histologically resembling allergic contact dermatitis

**Treatment:**
- Careful avoidance of UVR exposure & contact allergens is of primary importance
- Topical or intermittent oral corticosteroid and emollient therapy
- For refractory disease, prolonged courses of low-dose PUVA, or oral immunosuppressive therapy are needed
- Azathioprine often very effective over several months
Dermatoses of Pregnancy

Outline

• Pemphigoid Gestationis
• Pruritic Urticarial Papules and Plaques of Pregnancy
• Impetigo Herpetiformis
• Atopic Eruption of Pregnancy
Pemphigoid Gestationis

- **AKA Herpes Gestationis**
- **Onset:** 2nd or 3rd trimester
- **Course:** Abrupt onset of self-limited bullae where IgG targets BPAG1/BPAG2
  - Can temporarily affect the skin of newborns
  - 25% manifest immediately postpartum
  - 75% flare within hours of labor
  - Tendency to recur with subsequent pregnancies
  - Neonatal disease due to transplacental transfer of maternal antibodies
Pemphigoid Gestationis

Diagnosis:
Histopathology
• Classic subepidermal blister

Immunofluorescence
• DIF- In ALL patients, linear deposition of C3 at the BMZ
• Salt-Split Skin: ROOF stains positive
Pemphigoid Gestationis

Prognosis & Treatment

• Spontaneous resolution over wks-month’s s/p delivery
  • Typically within 3 months of delivery

• Generally requires initial doses of prednisone 0.5 mg/kg QD
  • Anticipate significant flares at time of delivery that necessitate high dose prednisone
  • Refractory cases treated with plasmapheresis

• Topical corticosteroids & antihistamines may be effective
Pruritic Urticarial Papules & Plaques of Pregnancy

- **Onset:** 3\textsuperscript{rd} trimester, associated with maternal weight gain and twin pregnancy
- **Course:** Erythematous and edematous papules and plaques appear first in abdominal striae, with periumbilical sparing
- **Diagnosis:**
  - PUPPP remains a diagnosis of exclusion
  - Typical clinical presentation
  - Normal laboratory tests
  - Negative DIF/IIF
  - Non-specific H&E
Pruritic Urticarial Papules & Plaques of Pregnancy

Prognosis & Treatment

- Resolves spontaneously in about 4 weeks
- No flares postpartum
- Benefit from topical steroids and antihistamines
- Systemic steroids in refractory cases
Impetigo Herpetiformis

- **AKA** “Generalized Pustular Psoriasis of Pregnancy”
- **Onset** - 3rd trimester
- **Course** - Acute onset of erythematous patches, on the abdomen & flexural areas that develop 2-3 mm pustules along the periphery
- Typically occurs in patients with **NO** prior history of psoriasis
- **Diagnosis** - ↑ WBC count ↑ ESR, Negative DIF/IIF
  - Hypocalcemia-
  - Hypoalbuminemia
Impetigo Herpetiformis
Impetigo Herpetiformis

Prognosis & Treatment

• Maternal Risks
  • Can be life threatening due to complications of hypocalcemia → seizures, tetany, delirium, cardiac arrhythmias

• Fetal Risks
  • Placental insufficiency
  • Disease usually resolves postpartum
  • Often recurs with subsequent pregnancy with earlier onset & more severe course
Impetigo Herpetiformis

Prognosis & Treatment

- Systemic corticosteroids are 1st line treatment
  - Starting doses up to 60mg prednisone QD
- Careful management of hypocalcemia & hypoalbuminemia
- Consider use of PUVA
- In life threatening cases, early delivery of the baby may be necessary
Atopic Eruption of Pregnancy

Onset: 1\textsuperscript{st} trimester

Course: Two clinical variants
- Eczematous (E-type) – eczematous lesions in flexures
- Prurigo (P-type) – Papular eruption on trunk and extremities
- 80% have no history of atopic dermatitis

Diagnosis:
- Clinical diagnosis
- Biopsy shows non-specific mild acanthosis, parakeratosis and erosions
- 70% of cases with elevated IgE
Prognosis & Treatment

- Resolves following delivery
  - But sometimes may persist for weeks to months
- Recurrence in subsequent gestations is common
- Treat symptomatic pts with medium potent topical steroids & antihistamines
- Also Urea 10%, UVB, menthol
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<thead>
<tr>
<th>Dermatosis</th>
<th>Fetal risk</th>
<th>Newborn skin involvement</th>
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<tbody>
<tr>
<td>Gestational pemphigoid</td>
<td>Increased risk of prematurity  &lt;br&gt;Tendency towards small-for-gestational-age births</td>
<td>Lesions of gestational pemphigoid in up to 10%</td>
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<td>Pruritic urticarial papules and plaques of pregnancy</td>
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<td>Single report to date</td>
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<tr>
<td>Prurigo of pregnancy</td>
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<tr>
<td>Cholestasis of pregnancy</td>
<td>Increased risk of premature labor, meconium staining, fetal distress, and fetal death</td>
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Photo and Pregnancy Related Dermatoses

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