Common Dermatological Dilemmas

Fernando Vega, M.D.
Seattle Healing Arts

Itchy Wheals

- When is it Urticaria?
- When is it angioedema?
- When is it allergic?
- When is it non-allergic?

Urticaria

- Wheals, superficial
- Pruritic
- Transient
- Pale center
- Different initiators

Angioedema

- Deeper swelling
- Poorly defined
- May affect mucosa
- Not Transient

Dermatographism
Urticaria - Excercise

Urticaria - Pressure

Urticaria - cold

Urticaria - vasculitis
- Lasts longer
- May bruise

Urticaria – Allergic contact

Urticaria – non allergic
- Non immunological contact from Nettle sting
Urticaria
Etiologies and Pathomechanisms

- Idiopathic
- Immunologic
  - Autoimmune (auto antibodies against Fc RI or IGE)
  - IgE dependent (allergic)
  - Immune complex (vasculitic)
  - Complement and kinin dependent (C1 esterase deficiency)
- Non-immunologic
  - Direct mast cell-releasing agents (eg. Opiates)
  - Vasoactive stimuli (nettle stings)
  - Aspirin, NSAIDS.
  - Angiotensin converting enzyme inhibitors

Urticaria
Clinical classification of urticaria and angioedema

- Ordinary urticaria
- Physical Urticaria
- Urticarial Vasculitis
- Contact Urticaria
- Angioedema without wheals
- Distinctive Urticarial Syndrome

Urticaria
Classification of Physical Urticarias

- Urticaria due to mechanical stimuli
  - Dermographism
  - Immediate
  - Delayed
  - Simple
  - Symptomatic
  - Acquired
- Urticaria due to temperature changes
  - Heat and stress
  - Heat and contact urticaria
  - Localized heat-contact urticaria
  - Stress
  - Cold contact urticaria
  - Primary
  - Secondary (cryoglobulin, cold agglutinins)
  - Exercise induced
  - Solar Urticaria
  - Aquagenic urticaria

Itchy Rashes

Atopic Dermatitis
Synonym: Eczema

- Chronic, relapsing, pruritic
- Three stages: infantile, childhood, adulthood
- Xerosis component with susceptibility to irritants
- Family history of atopy
- Majority have occurrences before 5 years of age
- Disposition influenced by environment
- Immunobehavior: IgE, eosinophilia
- Responsive to corticosteroids and macrolide immuomodulators

Atopic Dermatitis

- In infancy occurs more on face, extensor surfaces
Atopic Dermatitis

• On extensor surfaces of arms

• Severe chronic hand dermatitis in an adult

• Exaggerated palmar creases in ichthyosis

• Keratosis pilaris

• Infected hand dermatitis

Complications

Diagnostic Features by AAD consensus

Essential features: must be present, and if complete are sufficient for diagnosis

- Pruritus
- Eczematous Changes
  - Typical and age-specific patterns
  - Face, neck and extensor involvement in infants and children
  - Current or prior flexural lesions at current or any age
  - Sparing of groin and axial regions
- Chronic or relapsing course

Important features: seen in most cases for support of the diagnosis

- Early age of onset
- Atypical vascular responses
- Xerosis

Associated features: help in suggesting the diagnosis

- Perifollicular accentuation / lichenification / prurigo
- Keratosis pilaris / ichthyosis vulgaris / palmar hyperlinearity
- Ocular / Periorbital changes
- Perioral / periocular lesions
Atopic Dermatitis

Diagnostic Features

Major features (3 of 4 present)
• Pruritus
• Typical morphology and distribution
• Chronic or chronically relapsing dermatitis
• Personal or family history of atopy

Minor features (3 of 23 present)
• Xerosis
• Ichthyosis/palmar hyperlinearity/keratosis pilaris
• Type 1 skin reactivity
• Elevated serum IgE
• Early age of onset
• Tendency toward cutaneous infection/impaired cell-mediated immunity
• Tendency toward non-specific hand or foot dermatitis
• Nipple eczema
• Cheilitis
• Recurrent conjunctivitis
• Denne-Morgan intraorbital fold

Minor features (3 of 23 present)
• Keratoconus
• Anterior subcapsular cataract
• Orbital darkening
• Facial pallor/erythema
• Rhinitis alba
• Anterior neck folds
• Pruritus when sweating
• Intolerance to wool and lipid solvents
• Perifollicular accentuation
• Food intolerance
• Course influenced by environmental or emotional factors

Differential Diagnosis

Seborrheic Dermatitis

Differentiated from Atopic Eczema
• Infantile and adult forms exist
• Lesions favor the scalp, ears face, central chest and intertriginous areas
• Etiological links with seborrhea, abnormal sebum composition and commensal yeast M. furfur
• Lymphocytic infiltrate, not IgE or eosinophilic in nature

Seborrheic Dermatitis

Differentiated from Atopic Eczema
• Greasy scales
• In infants, starts at scalp and can generalize
• In adults:
  • scalp – dandruff
  • Milder form on face
  • Less often over central chest and intertriginous areas
  • M. furfur always found
  • Sebaceous glands

Fernando Vega, M.D.
Seborrheic Dermatitis
Differentiated from Atopic Eczema

Lichen Simplex Chronicus
Differentiated from Atopic Eczema

- Neuodermatitis from rubbing
- Most frequently seen in adults > 60 years
- Often seen on posterior neck, extensor surfaces of the forearm and lower legs, and the genital region

Lichen Simplex Chronicus
Differentiated from Atopic Dermatitis

Stasis Dermatitis
Differentiated from Atopic Dermatitis

Id reaction
Differentiated from Atopic Dermatitis

Synonyms
- Disseminated eczema
- Autosensitization Dermatitis

Disseminated Eczema – Id reaction
Differentiated from Atopic Dermatitis

Key Features
- Secondary lesions of eczema distant from the primary site of involvement
- Symmetric distribution pattern
- Often associated with
  - Allergic contact dermatitis
  - Stasis dermatitis
  - Onychomycosis
Disseminated Eczema – Id reaction
Differentiated from Atopic Dermatitis

Clinical Features
- Poorly demarcated patches of eczema usu over extremities
- Symmetric
- Keratinocyte proinflammatory mediators: IL-, IL-6, TNF-α

Cutaneous Fungal Infections

• Limited to
  - Stratum Corneum
  - Hair
  - Nails
  - Dermis
  - Subcutaneous Tissues

Cutaneous Fungal Infections

• T. versicolor
  - Not inflammatory
  - Non pruritic
  - Oil requirements

Cutaneous Fungal Infections

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Pathogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimal Inflammation</td>
<td>Pityriasis/verruciform</td>
</tr>
<tr>
<td></td>
<td>Tinea nigra</td>
</tr>
<tr>
<td>Inflammatory response</td>
<td>Tinea capitis barbae,</td>
</tr>
<tr>
<td>common</td>
<td>faciei, corporis, cruris,</td>
</tr>
<tr>
<td></td>
<td>manusum, pedis</td>
</tr>
<tr>
<td></td>
<td>Cutaneous candidiasis</td>
</tr>
<tr>
<td></td>
<td>Massezia furfur</td>
</tr>
<tr>
<td></td>
<td>Exopolial werneckii</td>
</tr>
<tr>
<td></td>
<td>Trichophyton, microsporum</td>
</tr>
<tr>
<td></td>
<td>Epidermophyton</td>
</tr>
<tr>
<td></td>
<td>Candida albicans</td>
</tr>
</tbody>
</table>

Cutaneous Fungal Infections

• KOH prep of
  - Pityriasis versicolor
  - Tinea
Cutaneous Fungal Infections

• Tinea corporis
  – Active border
  – Scalped interior border
  – Pustules not vesicles

• Tinea cruris
  – Archiform erythematous border

• Tinea manum
  – No vesicles

• Tinea barbae

• Tinea capitis

• Tinea pedis
Cutaneous Fungal Infections
- Tinea Unguium

Cutaneous Fungal Infections
- Cutaneous candidais

Cutaneous Fungal Infections
- Sporotrichosis

Bites and Stings
- Papular urticaria
- Excoriated papules may progress to prurigo nodularis
- Pseudolymphomatous nodes are common
- Anaphylaxis is mainly related to hymenopterids
- Secondary infections are usually staphylococcal
- Nocardiosis and sporotrichosis can also be inoculated by insects

Bites and Stings
- Flea bites, bedbug bites come in threes:
  - Breakfast, Lunch and Dinner
- Ticks
- Spiders
Bites and Stings

• Bullous bug bites

• Tick granuloma

Bites and Stings

• Lone star ticks

• Brown recluse spider

Bites and Stings

• Central dusky necrosis of brown recluse bite

Oral Disease
Oral Diseases

• Geographic tongue

Oral Diseases

• Hairy Tongue

Oral Diseases

• Fissured tongue

Oral Diseases

• Apthous Ulcer

Oral Diseases

• Herpes Stomatitis

Oral Disease

• Leukoplakia
  • Most common premalignant condition
  • Biopsy mandatory

(ventral surface tongue)
Oral Disease

- Squamous cell CA
  - Exophytic mass
  - Typical presentation and site

Oral Disease

- Nicotine stomatitis
  - Umbilicated papules
  - Infl mucus glands