Starting From Scratch
Common Pediatric Dermatoses

Richard J. Antaya, MD, FAAP, FAAD
Professor, Dermatology & Pediatrics
Yale University School of Medicine

Impact of Atopic Dermatitis

- prevalence -- 10-17% of all children*
- mild in 85%
- mod to severe -- profound effect on QOL
  - intractable itching and sleep loss
  - soreness, scarring, dyspigmentation
  - messy topicals
  - social stigma
  - QOL impairment equivalent to CF
  - costs more than childhood diabetes
- 40-60% continue to experience disease intermittent exacerbations
- 4-10% of adults with persistent disease


Diagnosis of Atopic Dermatitis

Diagnostic Criteria

- Greek - to boil, to erupt

Adapted from Hanifin, Rajka. Acta Dermato Venereol. 92(suppl):44-7;1980
and AAD Consensus Conference on Pediatric Atopic Dermatitis
Atopic Dermatitis
Clinical Presentation

• 6 skin findings of eczema
  1. erythema
  2. papules/edema
  3. exudation - oozing and crusting
  4. scale
  5. excoriations
     linear erosions from scratching
  6. lichenification
     disclosed, hyperpigmented, leathery skin due to
     rubbing (accentuated skin markings)
• symmetric > asymmetric

Diagnosis of Atopic Dermatitis
Diagnostic Criteria

• Pruritus
• Eczema (from Greek - to boil, to erupt)
  – chronic & recurring
  • acute
  • chronic
  • subacute
     – age-specific distribution

Adapted from Hanifin, Rajka. Acta Dermato Venereol. 92(suppl):44-7;1980
and AAD Consensus Conference on Pediatric Atopic Dermatitis

ATOPIC DERMATITIS
Infantile Distribution
### ATOPIC DERMATITIS
**Childhood-Adult Distribution**
- antecubital and popliteal fossae
- posterior neck
- presacral back, buttocks, flanks
- eyelids
- scalp
- hands, feet → palms and soles
- may be severe and generalized
- “head light” sign

### Diagnosis of Atopic Dermatitis
**Associated Features**
- early age at onset
  - 80-90% by 5 years
- personal or family history of atopy
- xerosis
  - associated with ichthyosis vulgaris (IV)
  - worse prognosis in patients with IV

### ATOPIC DERMATITIS
**Differential Diagnosis**

<table>
<thead>
<tr>
<th>Category</th>
<th>Infant/Childhood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seborrheic dermatitis</td>
<td>contact dermatitis</td>
</tr>
<tr>
<td>Scabies</td>
<td>tinea corporis</td>
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<tr>
<td>Immunodeficiency states / disease</td>
<td>dermatophytid</td>
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<tr>
<td></td>
<td>scabies</td>
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<tr>
<td></td>
<td>pityriasis lichenoides</td>
</tr>
<tr>
<td></td>
<td>CTCL (cutaneous T-cell lymphoma)</td>
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</table>
ATOPIC DERMATITIS
5 E’s to an Exceptional Eczema Experience

1. Education - level of success is directly related to how much education patients and their families receive about AD*
2. Expectations
   - Endpoints
   - Clearance vs Maintenance phases of therapy
3. Encouragement
4. Enough medication – campfire analogy
5. Early return visit (2 weeks)


Clinical Approach to Atopic Dermatitis
My Spiel

Educate
• Explain what it is and what it is not
  – No cure, not a single allergy, but can be controlled
  – “The itch that rashes”
  – Allokinestis (cutaneous hyperesthesia)*
  – perceive normally “nonitchy” stimuli as “itchy”
• Explain the provokers of itch in A.D.
  – heat and perspiration 96%
  – wool 91%
  – emotional stress 81%
  – certain foods (rarely)
  – “common cold” 36%

Clinical Approach to Atopic Dermatitis
My Spiel

• Expectations
  – Endpoints
    • Clearance with anti-inflammatory meds
    • Maintenance with trigger avoidance and moisturization
• Explain rationale for proposed therapy
  – Enough medicine -- Campfire analogy
ATOPIC DERMATITIS
The Spiel on General Skin Care

soaps
• avoid “true soaps”
  – Dial, Ivory, Irish Spring
• moisturizing cleansers
  – Dove, Tone, Olay Complete
• soap free cleansers
  – Cetaphil, Aquanil
• avoid entirely during flares

moisturizers
• immediately after bathing and prn (multiple times/day)
• avoid lotions; use creams and ointments
• Eucerin, Aquaphor, petrolatum, Cetaphil, Acid Mantle cream, Vanicream, Theraplex Emollient
• Ceramide-based – Epiceram, CeraVe, Cetaphil Restoraderm

laundry detergents
• hypoallergenic detergents
  – Dreft, Ivory Snow
• avoid
  • dryer sheets and fabric softeners
  • wool and polyester fabrics
  • extremes of temperature, humidity
  • dust mites (mattress, box spring, pillow covers)
  • Certain foods – milk, wheat, egg, soy
ATOPIC DERMATITIS

Hanifin’s Truisms of Bathing

“Bathing dries the skin”
A: True
If skin allowed to air dry.

“Bathing hydrates the skin”
A: True
If moisturizer is applied immediately after.

No conclusive data supported by studies

ATOPIC DERMATITIS

Bathing Recommendations

• showers - o.k. if not flaring
• bath - if more severe b.i.d. for 10 min, tepid
• do not rub, scrub or use washcloths
• pat dry partially with a towel - don’t rub
• within 3 minutes apply moisturizer and/or topical medication

ATOPIC DERMATITIS

For more severe flares

• Open Wet Dressings
  ─ cools and helps relieve pruritus
  ─ regimen (q.d. – q.i.d.)
    • soft cotton cloth (bed sheet, pillowcase)
    • soak in tepid water, wring out
    • apply one layer thick to affected area for 10-15 min (don’t let dry out)
    • remove and apply medication/moisturizer

• Wet Wraps
  ─ apply low to medium potency topical steroid
  ─ damp PJ’s or gauze covered by dry PJ’s or dry gauze
  ─ night time usually, can continue during day for very severe flares
  ─ up to 2 weeks
ATOPIC DERMATITIS
MEDICAL TREATMENT

- weak topical corticosteroids
  - non-fluorinated ointments or creams
    - Hydrocortisone acetate 0.5, 1.0, or 2.5%
    - Hydrocortisone valerate 0.2%
    - Desonide, fluticasone linoleate (low), aclometasone
- medium to high potency steroids
  - Triamcinolone (med)
  - Fluticasone ointment (med)
  - Mometasone cream (med) → mometasone ointment (high)

Topical Steroid Monotherapy Regimens

- Standard regimen
  - Twice daily for 2 weeks (esp. first course)
  - Then p.r.n. based on need and response to treatment
- More severe regimen
  - Pulse dose (once or twice) on weekends
  - 3 consecutive days/week
- Most severe regimen
  - Single application 3 days/week during maintenance phase
  - Mon, Wed, and Fri
  - Decreases frequency of flares

Enough Medication

- Frequency
- Duration
- Recommended amount per dose
  - adult hand = ~ 0.5 gm
  - total BSA of 3-6 mo = 4-5 gm
  - total BSA of 6-10 yo = 10 gm
  - total BSA of an adult = 20-30 gm
- Topical meds dispensed as
  - 15, 30, 45, 60, 80 or 100 gram tubes
  - 1 lb (454 gm) jars
Enough Medication

ESTIMATES FOR QUICK MEMORIZATION

- Recommended amount per dose
  - total BSA of a 5 mo = 5 gm
  - total BSA of a 5-10 yo = 10 gm
  - total BSA of a 20 yo = 20 gm

- Do the math…
  - 5 mo. 100% BSA = 5gm x 2 = 10gm x 14 days = 140 gm
  - 7 y.o. 100% BSA = 10gm x 2 = 20gm x 14 days = 280 gm

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Enough Medication

Only topical steroids sold in 1 lb jars
- triamcinolone acetonide
- hydrocortisone acetate

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Clinical Approach to Atopic Dermatitis
Campfire Analogy

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Topical Calcineurin Inhibitors (TCI’s)

- **Protopic Ointment** (tacrolimus)
- **Elidel Cream** (pimecrolimus)

Proposed mechanism of action
- CD4+ lymphocytes
- Inhibits calcineurin
- Inhibits gene transcription
  - IL-2, IL-3, IL-4, IL-5, GM-CSF, TNF-α, IFN-γ

When do I use the TCI’s?

- Concerns about steroid use
  - Using steroids too frequently or continuously
  - Location too risky
    - Intertiginous areas
    - Eyelids
- Steroids ineffective
- Discuss FDA boxed warning

ATOPIC DERMATITIS
ADJUNCTIVE ANTIBIOTICS/ANTIBACTERIALS

- Treat impetigo/superinfection
- Reduce *S. aureus* topically
  - Mupirocin b.i.d. 5 days/1 mo
  - Bleach baths*
    - *previously had AD-associated impetigo

Huang JT, Rademaker A, Paller AS. Arch Dermatol. 147(2):246-7, 2011 Feb
ATOPIC DERMATITIS

ANTIHISTAMINES

- especially hs
  - hydroxyzine (Atarax)
  - diphenhydramine (Benadryl)
  - cyproheptadine (Periactin)
  - doxepin (Sinequan) – cardiotoxic!
- randomized trials have not demonstrated improvement with sedating or non-sedating antihistamines

AD Habit-Reversal Techniques (HRT)

Breaking the itch-scratch cycle

- Scratching
- Epidermal Damage
- Increased Adhesin Exposure
  - collagen, fibronectin, fibrinogen
- Increased S. aureus binding/ inflammation

AD Habit-Reversal Techniques (HRT)

- Effective for tics and nervous habits
- Scratching is maintained by operant reinforcement
- HRT teaches
  - recognize the habit
  - identify situations that provoke it
  - train to develop a “competing response practice”
    - Striking, patting, or grasping the area
- Requires a motivated patient and physician
**Atopic Dermatitis Therapeutic Pyramid**

- **Prayer and/or divine intervention**
- **Systemic Immunomodulators**
- **UV Phototherapy**
- **Allergy Testing/Avoidance**
- **Habit Reversal**
- **Anti-Staph Antibiotics**
- **Topical Calcineurin Inhibitors**
- **Topical Steroids**
- **Protective Skin Care & Trigger Avoidance**

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**ATOPIC DERMATITIS**

5 E’s to an Exceptional Eczema Experience

1. **Education**
2. **Expectations**
   1. **Endpoints**
   2. **Clearance vs Maintenance**
3. **Encouragement**
4. **Enough medication – campfire analogy**
5. **Early return visit (2 weeks)**

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**IMPETIGO CONTAGIOSA**

- Both *Staph aureus* and *Strep pyogenes*
- Summer - trauma and insect bites
- Winter – URIs, AD
- **Treatment**
  - Oral - cephalexin, dicloxacillin, amoxicillin-clavulanate, erythromycin, cefaclor
  - Topical
    - Mupirocin oint or cream (Bactroban) x 7-14 days
    - retapamulin oint 1% (Altabax) x 5 days
  - Soak off crusts – no change in time to resolution
### Bullous Impetigo

- Always Staph aureus
- Epidermolytic toxin cleaves stratum granulosum
- Phage group II
- Same toxin as Staph Scalded Skin Syndrome
- Rx: Oral anti-Staph antibiotics

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### Coxsackie Virus A6 Infection and Atypical Coxsackie Rashes

- 99% vesiculobullous and erosive eruption
- 61% - rash > 10% of BSA
- perioral, extremity, truncal
- classic HFMD areas - palms, soles, buttocks
- eczema coxsackium in sites of AD
- 37% Gianotti-Crosti like eruption
- 17% petechial /purpuric
- Delayed onychomadesis & periungual desquamation

*Pediatrics 2013;132:e149–e157*

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### Lyme Disease

- Multi-stage, multi-system disease
- Agent: *Borrelia burgdorferi*, Vector: *Ixodes* ticks
- Late spring to mid fall
- Erythema Migrans (previously ECM) in 80%
  - expanding, erythematous, round or oval areas
  - solitary or multiple, concentric rings
  - variable induration, pain, pruritus
- Untreated cases - arthritis, neurologic, cardiac, and ophthalmic complications
Lyme Disease
Treatment

• young children – amoxicillin

• older children/adults - doxycycline

Tinea Corporis Pearls

• Fungal infection of the superficial epidermis
• KOH wet prep for diagnosis
  – Scrape with edge of glass slide; not scalpel
  – Apply one drop Chlorazol Black E fungal stain
  – Place coverslip
  – Scan on low power with condenser at lowest point
• "If it’s scaly…scrape it!"
• Don’t get CLIAphobia

Tinea Corporis Treatment Pearls

• Topical azole* unless widespread
• Treat b.i.d. for 2 to 4 weeks
• Terbinafine, naftifine, butenafine, ciclopirox
  – Fungicidal
  – Second line
• Look for source

* clotrimazole, ketoconazole, miconazole, econazole
Granuloma Annulare

- Small, firm papules form annular plaque
- Skin-colored, dusky to violaceous
- (- epidermal, + dermal inflammation)
- Acral locations
- Necrobiosis (destruction) of dermal collagen
- Subcutaneous - deep nodules
- Periosteal – “bony” hard; over scalp, tibia
- No treatment, no associations, reassurance

TINEA CAPITIS

- Dermatophyte infection of the hair shaft
- Presentation
  - hair loss and/or multiple “black dots”
  - patchy areas of scale
  - lymphadenopathy
- Common in African-American children
- Usually caused by Trichophyton tonsurans (does not fluoresce)

TINEA CAPITIS

- Oral griseofulvin 20-25 mg/kg/day in a single dose with fatty food
- Treat for 6 - 12 weeks
- Adjunctive use of selenium sulfide (Selsun Blue), ketoconazole, or ciclopirox shampoo may decrease fungal shedding
- Hair care practices has no effect on tinea capitis
Scalp Scaling in Prepubertal Children

- 300 children, 50% < 2 yrs., 50% 2-10 yrs
- 66 (22%) had scalp scaling
- <2 yrs - seb derm (SD) and AD
- 2-10 yr – nonspecific (fine, white), SD, AD
- 3% FCx pos for dermatophyte (AA, T tons)
- 53% - head and neck lymphadenopathy

*Pediatrics* Jan 2005 115(1): e1-e6

**KERION**

- Boggy, highly inflammatory reaction
- Bacteria may be cultured (*Staph*)
- Treatment
  - Griseofulvin – same as for tinea capitis
  - Prednisone (1-2mg/kg/day) for ~5 days
  - Oral antibiotics +/-

**Id Reaction**

Distinguish from

Drug hypersensitivity

Urticaria

- Edematous, erythematous papules
- Lineup along hairline, postauricular
- Atopic dermatitis distribution
Tinea Versicolor

- *Malassezia furfur* (*Pityrosporum orbiculare*)
- More common in adolescents and adults

**Treatment**

- Selenium sulfide solution/shampoo - apply and rinse
  - 1% OTC - overnight
  - 2.5% Rx - 20 minutes
- Imidazole antifungal creams bid x 1-2 weeks
- Ketoconazole 400 mg P.O. in a single dose, may repeat in one week

Scabies

**Diagnosis**

1. History of intractable itching
2. History of possible exposure
3. Character and distribution of lesions
4. Microscopic exam of skin scrapings

**Scabies in Older Children**

Distribution – “think soft skin”
- anterior axillary lines
- inner aspect of upper arms
- areolae
- penis
- wrists and interdigital webs
- ankles
SCABIES
Infants
• Diffuse eczematous dermatitis
• Frequently involves entire cutaneous surface (face, palms, soles)
• Inflammatory nodular lesions of axillae / diaper area of very young
• Burrows, papules, vesicles and pustules

SCABIES
TREATMENT
• 5% permethrin cream (Elimite)
  – Total body in infants and older children
  – Don’t recommend neck to toes
  – 8-14 hour (overnight); repeat in 7 days
• Ivermectin (Stromectol)
  – 2nd line, 200 mcg/kg, repeat 1 week
• Wash clothing / bedding >120°F next a.m.
• Treat all close contacts
• Treat the “patient”
  – Moderate potency topical steroids x 2 weeks

Head Lice
Myths vs Facts
• Don’t affect only “dirty” individuals
• Not linked to poor hygiene or living conditions
• Don’t jump or fly
• Distance of nit from the scalp predicts duration of disease
  – Location of nit varies with temperature and humidity
    (1/4 – 6 inches)
Pediculosis Capitis
Head Lice

• Symptoms
  – nocturnal pruritus
  – red macules on nape of neck and scalp

• Don’t spread any other disease, rare impetigo, malaise

• Transmission: head-to-head contact

Head Lice Diagnosis

• vs Visual inspection
  – 4x more effective
  – 2x faster

• Combing hair with nit comb
  – Teeth spacing 0.2-0.3 mm
  – Wet hair may be more effective

• Procedure
  – Routine comb or brush
  – Insert louse comb at crown
  – Gently touches scalp
  – Draw firmly down, angle distally
  – Examine comb after each pass
  – Usually 3 minute to find first louse

• Nurses out-perform MDs

Mumcuoglu KY et al. Pediat Dermatol 2001;18:9-12

Pediculosis Capitis
First-line Treatment

• Lindane 1% is no longer recommended by AAP

• FDA-approved OTC
  – 0.3% pyrethrins (RID), permethrin 1% (Nix)
  – Apply to damp scalp 10 min and rinse
  – Repeat 7-10 days (best on day 9)
  – Apply 1:1 vinegar/H2O, enzyme solution to enhance combing
  – Comb with metal nit comb

• Re-examination for live lice (nurse preferably) after another 8-10 days

• Cost ~$20 for 1-2 treatments

Adapted from Guidelines for the Treatment of Resistant Pediculosis; 6/14/99
AAP Policy Statement. Head Lice Aug 2010
Pediculosis Capitis Second Line Treatment

- If live lice present after 2 OTC treatments
- Malathion lotion 0.5% (Ovide®)
- Side effects: scalp irritation, dandruff, conjunctivitis, flammable until dried
- 7 days after the treatment 90% were lice free
- Application
  - To dry hair thoroughly wet hair and scalp
  - Allow to dry uncovered
  - Shampoo hair after 20 min – 8 hr, nit combing
  - Only repeat in 7-9 days if lice still present
- Supplied 2 oz bottles (1 application = $206)
  Adapted from Guidelines for the Treatment of Resistant Pediculosis; 6/14/99

5% Benzyl Alcohol Lotion

Ulesfia

- FDA approved April 2009
- Kills head lice by asphyxiation w/o potential neurotoxic SE
- > 6 months of age
- 2 PC studies for FDA approval – 628 pts
  - Two 10-minute treatments, 1 week apart
  - 14 days after the treatment 75% were lice free
  - SE - irritation of the skin, scalp, and eyes, application site numbness
  - Avoid in premature infants - serious respiratory, heart- or brain-related adverse events
- Now available

Ulesfia Lotion Usage Guidelines

<table>
<thead>
<tr>
<th>Hair Length</th>
<th>Amount of Ulesfia Lotion/Tx</th>
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<tbody>
<tr>
<td>Short</td>
<td>$41.59/8oz bottle</td>
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<tr>
<td>- 0-2 inches</td>
<td>4-6 oz (½-⅔ bottle)</td>
</tr>
<tr>
<td>- 2-4 inches</td>
<td>6-8 oz (⅔-1 bottle)</td>
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<tr>
<td>Medium</td>
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<tr>
<td>- 4-8 inches</td>
<td>8-12 oz (1-1½ bottles)</td>
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<tr>
<td>- 8-16 inches</td>
<td>12-24 oz (1½-3 bottles)</td>
</tr>
<tr>
<td>Long</td>
<td></td>
</tr>
<tr>
<td>- 16-22 inches</td>
<td>24-32 oz (3-4 bottles)</td>
</tr>
<tr>
<td>- &gt; 22 inches</td>
<td>32-48 oz (4-6 bottles)</td>
</tr>
</tbody>
</table>
Natroba Topical Suspension 0.9% (Spinosad)

- Insecticide
- FDA approved in 2011
- 4 years of age and older
- Contains benzyl alcohol (caution in infants < 6 months of age)
- 10 min application to scalp and hair
- Repeat in 1 week if live lice present
- 86% were lice free after treatment

Ivermectin Lotion 0.5% (Sklice)

- Apply to thoroughly to dry hair and scalp for 10 min
- Rinse out with water
- Single use only
- For > 6 months of age
- 72-76% of subjects lice free at 2 weeks (vs 16% vehicle)
- SE
  - Eye irritation
  - Dry skin and dandruff
  - Skin burning sensation

Pediculosis Capitis

Third-line Treatments

- Ivermectin†
  - P.O.- 200 mcg/kg/dose x 1; repeat 1 wk for live lice (41% required 2nd dose)
- Oral Bactrim
  - Gram neg bacteria in lice GI tract
  - 10 day course p.o. (dose for A.O.M)
- Nuvo lotion* Cetaphil Cleanser®
  - Apply to scalp, dry with hair dryer
  - Rinse out next day, repeat qwk x 3
  - Nit removal unnecessary
  - 96% cure
  - Suffocate the lice with hair drier

†Ameen M. Pediatr Infect Dis J 2010;29(11):991-93
School Exclusion

- "No nit" policies for return to school should be abandoned per AAP policy statement 2010.
  - Losses estimated at $1 billion/yr
  - School exclusion not recommended by American Public Health Association
- In 1998, 50% of US school nurses would not allow a child with nits back into school
- Infestation present weeks before detection
- 75% with nits alone are not infested

Bed Bugs

- Diminishing since mid 20th century, DDT
- Rapid resurgence last 2 decades
  - travel, resistance
- NYC health dept 6.7% (400,000) reported bedbugs in last 12 months
- Orkin receives hundreds of calls daily
- Found in hotels, homes, dorms, theaters, clothing stores, vehicles, schools, daycare
- The Met at Lincoln Center in NYC
- Sleep-overs for children

Bed Bugs

- Reported to harbor 28-40 human pathogens
  - Hepatitis B and C, HIV
  - Secondary vector - Trypanosomes (Chagas disease)
- Do NOT transmit any known disease to humans
- Primary damage
  - High cost of extermination
  - Emotional, psychological, social stigma
  - “Yuck” factor

A “Bed” Bug’s Life

- **Survival**
  - Active through temperatures 7 - 45°C
  - Long durations without food or water

- **Feeding**
  - Mostly at night unless ravenous
  - Travel 5-20 feet to reach their host
    - Body temperature
    - CO2
  - Feed every 3-5 days for ~4-10 minutes
  - After feeding return to their hiding places

Bed Bug Bites

- **Bites** are asymptomatic
- **Saliva**
  - Anesthetic
  - Nitrophorin → nitric oxide → local vasodilation
  - Anticoagulant – inhibits factor X
  - Apyrase – inhibits ADP-induced platelet aggregation
  - Triggers allergic reaction – pain, itch, anaphylaxis

Diagnosis

- Erythematous wheals followed by firm red papules +/- hemorrhagic central punctum
- +/- Bullae
- Wheals up to 20cm
- Papules up to 3 cm
- Exposed parts – head, neck, arms, shoulders
- May take 14 days to appear at first
Diagnosis

- Rarely in axillae or popliteal fossae
- Linear lesions – “breakfast, lunch and dinner”
- Patients with papular urticaria often have specific IgG Abs to bed bug proteins
- Bites resolve in 1-2 weeks without treatment
- Most people will develop sensitivity to the bites over time


Diagnosis

- Provocative History
  - Bites occur at night so new lesions in AM
  - Fecal smears or flecks of blood on sheets or skin
  - Pungent sweet odor in room or house with heavy infestation
  - Discovering the refuges (thin spaces)
  - Ribbing of mattresses, box springs
  - Behind peeling wallpaper, behind headboards
  - Cracks and crevices of furniture, walls or floors
  - Clothing, luggage, books, papers, TVs, appliances

Bed Bug Treatment

- Limited evidence-based data available
- Empirical treatments for bite reactions
  - simple hygiene
  - topical and oral corticosteroids
  - antihistamines
  - antibiotics
- No interventions to eradicate bed bugs or prevent bites identified in studies
- Prevention is key

JAMA. 2009;301(13):1358-1366
WARTS

- Human papilloma virus (HPV)
- Verrucae vulgaris, plana, plantaris, and condyloma acuminata
- Highest incidence in 10-19 y/o
- 25% disappear in 3-6 months
- 70% of primary wart gone in 2 years
- 32% wart free in 2 years

WART THERAPY

- Ignore
- Topical salicylic acid in collodion hs with paring
- Cryotherapy with liquid nitrogen
- Duct tape – apply for 6.5 days/week
- Heat therapy / ultrasound
- Pulsed dye laser* / CO2 laser
- Imiquimod cream - TLR-7 agonist
  - Expensive; low efficacy esp for non genital areas
  - Aldara (5%), Zyclara (5.75%)
- Immunotherapy (SABRE, skin test antigens)
- Oral cimetidine x 2-3 months still controversial

* Adapted from Tan OT, Lasers in Surg and Medicine, 1993, 13:127-37

Molluscum Contagiosum

- Poxvirus infection of the epidermis
- Mistaken for varicella or vesicles
- Infectious (swimming lessons, fomites)... but benign
- 33% - inflamed, itchy, dermatitis >> infected
- Untreated lasts 2-48 months (avg 12-18 mo)
- STD in adolescents and adults
- Severe in HIV infected patients
- No restrictions but cover for contact sports and swimming if possible
Molluscum Contagiosum
Treatment
• Tincture of time
• Office-based therapy (q 2 weeks)
  – Cantharidin (Blister beetle juice) application
  – Liquid nitrogen cryotherapy
  – Lacerate or lance with needle
  – Curettage
  – Candida Antigen intraleisional injection
• Home treatments
  – Tretinoin (Retin-A) 0.025% gel with Q-tip nightly
  – OTI – ZymaDerm – q.d. - homeopathic terpene oxides
  – NOT imiquimod – proven ineffective and expensive

ALLERGIC CONTACT DERMATITIS
Acute lesions - erythema, vesication, oozing
Chronic lesions - dry and lichenified
Common offenders
• Toxicodendrons - Poison ivy, oak, sumac (~80%)
• Metals - nickel (15-20%), cobalt
• Neomycin
• Preservatives and fragrances
• Shoes (chromates and rubber)
• Black henna tattoos (ppd)

Prominent Pruritic Periumbilical Papules:
Allergic Contact Dermatitis (ACD) to Nickel
• 38 children with suspected ACD to nickel
• prominent subumbilical and periumbilical papules
• generalized, lichenoid papular dermatitis resembling an id reaction
• patch testing performed in 9 (24%)
• all 9 (100%) patients had positive patch test results for nickel, confirming the diagnosis

**CONTACT DERMATITIS**

**TREATMENT**

- Topical steroids - moderate potency
- 2 week course of oral prednisone if widespread/facial
- May last for 1 to 3 weeks after exposure
- Identify allergen and avoid

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**PORT-WINE STAINS**

Capillary Malformation

- Will not involute, does not proliferate/spread
- May darken and thicken
- May become nodular w/ age
- May become significant, lifelong cosmetic and psychosocial problem
- Laser may be effective
Capillary Malformation “Port Wine Stain”

Red Flag: Psychosocial Impact

“When I go to school and get in a fight with someone they call me names like pizzaface, redface, Koolaidface, wineface and I can go on but…they make me feel hurt inside…I feel bad and cry…I sometimes feel that mom regrets having me and wonder if she blames it all on her, but I know that’s not true, but sometimes I stop and wonder... I just want God to know, and me to know, that I am a beautiful person inside not maybe on the outside, but on the INSIDE.”

Capillary Malformation “Port Wine Stain”

Pulsed Dye Laser Treatment

- response rate
  - variable
  - 65% - 75% complete to considerable response
  - multiple treatments (5-20 average)
  - child versus adult
  - improved response
    - anatomical site - forehead, lateral face, temple
    - geographic
  - recurrences can occur

Pyogenic Granuloma

lobulated capillary hemangioma

- common < 5 y.o.
- face, upper body, fingers
- solitary, dull red, papules
- 5-6 mm
- rapid growth – later than IHs
- ulcerate - glistening surface +/- crusted
- bleed
- DDx
  - infantile hemangioma, wart, melanoma
- Rx – shave, send to path and electrodesiccation and curettage
SUN PROTECTION STATISTICS

- Skin cancer - most common malignancy in U.S.
- 1 million new skin cancers diagnosed in 1997
- About 7,300 skin cancer deaths in 1996
- Malignant melanoma in U.S.
  - 1973: cases 5.7/100,000; mortality of 1.6/100,000
  - 1994: cases 12.5/100,000; mortality of 2.2/100,000
  - 41,600 new cases diagnosed in 1998
- Sun is the cause of at least 90% of all skin cancers

Good Sun Sense

- Broad-rimmed hats
- Sunscreens SPF 15 or more (> 6mo)
- Tightly woven clothing
- Sun Guard by Rit® in wash (UPF 5–30)
- UV protective sunglasses
- Natural shade, limit midday exposure
- Avoid tanning beds – recent CT legislation banning <17 year olds from using tanning beds
- Spray on tans are safe but do not protect from UV

Pilomatricoma

- Benign adnexal tumor from hair cortex
- Rock-hard, bluish, “tent sign” 2 mm -1 cm nodule
- Face > extremities
- 10% of all skin nodules/tumors in childhood
- Most asymptomatic, inflammation in some
- Spontaneous regression not reported
- Surgical excision, recurrence < 5%
- Familial 13.3% occurrences*
- Multiple 26.7%
  - Rubinstein-Taybi, Turner, Gardner syndromes