Bacterial Infections in Pediatric Dermatology

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Fill In The Blank

When you see _______ on the skin, you think of a bacterial skin infection
SEND SWABS

VIRAL PCR

BACTERIAL CULTURE
Newborn Weight Check

• 6 day old male

• Uncomplicated pregnancy and vaginal delivery

• Growing and feeding well

• No fevers
Guess The Diagnosis

What is the most likely diagnosis?

A) Staph pustulosis
B) Herpes simplex infection
C) Varicella infection
D) Pustular psoriasis
Guess The Diagnosis

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Neonate with pustules

• Infections
  – Staph/Strep
  – HSV
  – Syphilis
  – Listeriosis
  – Candida

• Non-infectious
  – Transient neonatal pustular melanosis
  – Erythema toxicum neonatorum
  – Miliaria
Adolescent Sick Visit: Pustule

- 17 year old male with arthralgias, low grade fever, pharyngitis
- Several painful pustules on arms/legs and hand
- Mild dysuria
- Rapid strep negative
What is the best next step?

1) Swab for bacterial culture
2) Check GC/Chlamydia PCR from urine
3) Check RPR and HIV
4) All of the above
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Disseminated Gonorrheal Infection

• Uncommon complication of gonococcal infection (1-3% of cases disseminate)

• 60% of DGIs involve the skin
  – Hemorrhagic pustules, petechia, purpura, macules, abscesses, vasculitis

• Screening test – Urine PCR

• Treatment: Ceftriaxone

Disseminated Gonorrhreal Infection

CHOP Emergency Room

• 9 month old male with cheek eczema for 3 months

• Presents to CHOP ED with worsening cheek rash for 2 days

• No fever

• Thoughts?
Superinfected Cheek Eczema

- Yellow honey-colored crusting and pustules
- Most commonly Staph or Strep
- Consider ruling out HSV
- Swab and cover with oral antibiotics
Superinfected Lip Lickers Dermatitis

- Staph bacteria “spilling out” of nares
- Swab
- Treat
- Prevent!
  - Treat dermatitis
  - Mupirocin in nares
Staph & Strep: Crusted

Bullous Impetigo

Ecthyma (Strep)

www.dermnetnz.org
“Dried oatmeal” crusting in SSSS
Enterovirus Infection: Crusting
Crusting On Scalp

- 4 year old male reports dry, flaky scalp for 3 months
- Present to CHOP ED for swelling and pain of right scalp for 1 week
- Oozing pus this morning per parents
- Crusting and alopecia noted
Kerion: Tinea Capitis → Painful Swollen Crusted Mass

**Typical Tinea Capitis**

**Kerion**

*Tip*: If there are pustules, screen for bacteria with culture
Eosinophillic Pustular Folliculitis

• Crops of pustules on head, neck > body of infant/toddlers

• Itchy & idiopathic
Contact Dermatitis

- Linear and geometric
- Itchy, can be painful
- Can mimic impetigo & cellulitis
Acne Follow Up

- Mom mad because patient is picking at pimples
- Patient reports sores on face, painful
What to do?

1) Increase tretinoin to 0.1% cream
2) Stop topical clindamycin
3) Send bacterial culture and start mupirocin cream
4) Tell her to stop picking her acne
Impetigo

1) Increase tretinoin to 0.1% cream
2) Stop topical clindamycin
3) Send bacterial culture and start mupirocin cream
4) Tell her to stop picking her acne
Her Brother...  IMPETIGO!

- Eroded macules
- Crusts
- Vesicles/bullae
- Treatment:
  - Cephalexin x 10 days
  - Mupirocin cream/ointment
  - Bleach baths/chlorehexidine
Linear IgA Mimics Bullous Impetigo
Linear IgA Bullous Dermatosis
(Chronic Bullous Disease of Childhood)

• Common in children <10, especially preschool age
• Persists for several months to years
• *Always rule out bullous impetigo*
• Treat initially with oral steroids, then dapsone
Desquamation and larger erosions

Staphylococcal Scalded Skin Syndrome
Pemphigus
Redness In The Folds
Streptococcal Intertrigo
Strep: “Fire Engine Red”

Image Courtesy of Paul Honig, MD
Cutaneous Strep: Management

- Mupirocin ointment TID
- Amox or cephalexin usually needed
- Consider bleach baths
- Keep dry (if possible)
SSSS:
Accentuation of erythema in folds
PICU Patient 1

- 5 year old female in ED is ill appearing with fever, tachycardia, low blood pressure and you find macular erythema and peeling of the groin....

- Thoughts?
On full physical exam...
Toxic Shock Syndrome

- $T \geq 38.9^\circ C$
- Erythematous eruption (sunburn-like, toxin mediated)
- Desquamation of palms and soles 1-2 weeks after onset
- Hypotension
- 3 or more other systems involved
  - GI
  - Muscular
  - Renal
  - Hematologic
  - CNS
- Negative workup for RMSF, leptospirosis, rubeola
- Negative cultures of blood, urine, CSF
- Clinical clues: bulbar conjunctival hyperemia, palmar edema
Toxic Shock Syndrome

• Causes
  – Superabsorbent tampon
  – Contraceptive sponges
  – Nasal packing
  – Staph/strep infections of bone, lung, soft tissue

• Treatment
  – IV antibiotics
  – Supportive therapy
  – Drainage of staph or strep infected site
Gram-negative Toe Webspace Infection
Non-bacterial redness in folds...

- A 9 year old M with Crohns Disease presents with pink patches in armpit x 6 months
- Also with similar irritated patches in his groin
- Only on oral mesalamine for IBD
Inverse Psoriasis
Bonus Round
Urgent Transfer to CHOP ER

• Rule out SJS
• Swelling, pain and blistering of lips
• Red eyes
Mycoplasma-associated Mucositis
Mycoplasma Mucositis vs Primary HSV
THANK YOU!

What Questions Do You Have?