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Objectives

• Recognize visual diagnoses for pediatric conditions that commonly present to the emergency department
• Broaden differential and recognize visual diagnoses for less common or easily misdiagnosed conditions
• Review relevant management recommendations
Case #1

• Patient is a 1 year old male who is brought to the clinic with fussiness and multiple pruritic papules.
  – Siblings and parent have similar lesions
  – Especially in the web spaces of the finger
  – Daycare sent them home for concerns of “bugs”
Case #1: Scabies

Dermatology
Cohen, Bernard A., Atlas of Pediatric Physical Diagnosis, 8, 299-368

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Case #1: Look alike
Case #1: Look alike
Case #1: look alike
Case # 2

• 5 year old female presents to the clinic with a purple rash
  – Recent URI
  – Swelling and pain of the ankle
  – Rash over lower extremities and buttocks
Case #2: Henoch-Schoenlein Purpura
Case #2 look alike
Case #2 Look alike
To drain or not to drain
Case #3 (speed round)

• A daycare provider refers you a 2 year old child who has suspicious lesions

• You see the following:
No
Case# 4

• 2 year old Is brought to clinic after choking on an unknown object.
  – Was playing with siblings in a toy room
  – Coughing intermittently and drooling
Case# 4: Button Battery

- On film can see rim around the edge to differentiate from a coin.
- Emergent if caught in the esophagus
- Three mechanisms of damage
  - Electric
  - Corrosion from contents
  - Pressure necrosis
Button Battery Ingestion

Esophageal
- Asymptomatic: Immediate Removal
- Symptomatic: Removal with CT follow-up to look for other damage

Gastric or Beyond
- <5 years and BB>20mm: Remove if possible
- >5 years and/or BB<20mm: Observation, serial XR
Every parent wants a plastic surgeon!
When to sew a lip lac

- Crosses the vermillion border (intersection of dry mucosa and skin)
- Lacerations of the inner lip rarely need intervention.
Case #5

- 4 day old female
- Afebrile
- Feeding well
- Not fussy
Case # 5: Urate Crystals

• Combination of calcium and urate
• Common in first few weeks of life
• May indicate relative dehydration especially if breastfeeding
• Self-resolve
Cases #6 and #7

- Five year old male
- 5 days of fever
- 2 days of rash and now has “white spots” on his tongue
• Two year old female
• 6 days of fever and increased fussiness
• Diffuse rash
• Red eyes
• “White spots” on tongue
What other exam findings should you look for?

- Cervical adenopathy
  - Typically unilateral
- Swelling of the hands and feet
- Peri-ungual desquamation
Case #6

• Streptococcal pharyngitis with scarlatiniform rash
• Diffuse erythema with fine papules
• Starts in groin/armpits
• Clinical diagnosis
• Oral therapy:
  – Amoxicillin 50mg/kg once daily, max dose 1g

Case #7

• Kawasaki Disease
• Diagnostic criteria
  – 5 days of fever + at least 4 of:
    • Bilateral bulbar conjunctivitis
    • Oral mucous membrane changes
    • Erythema or edema of hands or feet, periungual desquamation
    • Rash
    • Cervical adenopathy
Strep Cellulitis
Kawasaki Treatment

- Treatment within first 10 days reduces risk of coronary artery aneurysm
- IVIG 2g/kg
- Aspirin 30 to 50mg/kg/day until afebrile then 5mg/kg/day until inflammatory markers are normal
Incomplete Kawasaki

Supplemental Lab Criteria:
1. Albumin $\leq 3$ g/dl
2. ALT elevation
3. Platelets $\geq 450,000$ after day 7
4. WBC $\geq 15,000$
5. Urine WBCs $\geq 10$
   1. Do not obtain cath urine
Case #8 Impetigo

- Pustules that enlarge and rapidly break down to form thick, adherent crusts
- Characteristic “honey crusted” golden appearance
- Typically on face and extremities
- Staph and strep
  - Can lead to post streptococcal glomerulonephritis
- Topical treatment for limited disease and oral for more extensive
Case #9 Eczema Herpeticum

- Characteristic “punched out” lesions
  - Painful lesions
- Children with atopic dermatitis
- May present with systemic symptoms
  - Fever
Herpetic Gingivostomatitis

- Oral acyclovir indicated if presenting within 1st four days of illness
  - Reduced symptoms and duration
  - 15 mg/kg five times daily for 5-7 days
Case #10 Eczema Coxsackium

• Eruption consisting of vesicles, bullae, or erosions
• Concentrated on the extremities, including palms and soles, perioral face, and buttocks
• Enterovirus CVA6 outbreak
Hand Foot Mouth Disease
Case #11 Cellulitis?
Both presented with periorbital edema and erythema without fever

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Case #12

5 year old brought in by parents because all of a sudden her smile looks goofy

Smiling  At Rest

Neurology
Varma, Rajiv, Atlas of Pediatric Physical Diagnosis, 15, 585-616

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Case #13

Smiling

Raising Eyebrows

Neurology
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Central Vs Peripheral Facial Nerve Palsy

• Central
  – Facial weakness with relative sparing of the upper portion
  – Flattening of the nasolabial fold
  – Inability to retract the corner of the mouth
  – Retained ability to close the eye and wrinkle the forehead

• Peripheral
  – Flaccid weakness of the entire side of the face
  – Flattening of the nasolabial fold
  – Inability to retract the corner of the mouth
  – Inability to fully close the eye.
Evaluation and Treatment of Bell’s Palsy

• Evaluation
  – Ensure exam consistent with peripheral nerve palsy
    • Acute onset, progressive
    • Associated prodrome
  – Obtain Lyme serology if exposure is possible or in Lyme endemic areas
  – Imaging not necessary unless findings are atypical
  – LP if suspicion of meningitis

• Treatment
  – Eye care with artificial tears
  – Prednisone 2mg/kg daily for 5 days
    • American Academy of Neurology
    • Most recent Cochrane Review
  – No evidence to support use of antivirals alone or in conjunction with steroids
Classic Pediatric Rashes/Conditions
Case #17
Case #18
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