Pediatric Case Studies

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Case 1

• Almost 4 year old AA girl PMH UTI x 2 with abdominal pain and fever to 102.4 for 10 hours. Abdominal pain is intermittent, wakes patient from sleep, periumbilical in location. No Vomit, no diarrhea. Patient recently on antibiotics for UTI. Had had diarrhea in week leading up to this illness and fevers approximately 1 week ago. Diarrhea had resolved.
Case 1

- VSS 102.4, HR = 153, RR = 32
- Ill appearing, well-developed girl. Looks uncomfortable. No meningismus. Chest-CTA, no resp distress. Abd-diffuse tender, more over R side middle and RLQ. + guarding, ? Tender, - distention. Rest of exam wnl

Case 1

- WBC=26, N=82, band=6, L=4
- Hgb=10.5, Plt=281
- U/A 6 wbc, U/C neg x 24 hours
Case 1

- Patient given IVF, 1 mg of MSO4
- Reexam—more comfortable, still in pain, tender over R side mid abdomen. Still with guarding
Case 2

- 7 year old male mom noted limping over last 2 weeks. No h/o trauma, fevers. c/o pain in R thigh occasionally
- PE: T 98  HR 100  B/P  100/58
- Alert, looks well
- Mild antalgic gait
- Mild limitation of ROM of R hip
Legg-Calves-Perthes Disease

- Idiopathic Avascular Necrosis of the Femoral Head
- Mean age of presentation – 4-12 years
- Male:Female = 4:1
Legg-Calves-Perthes Disease

• Management
  – Rest
  – NSAIDs
  – Ortho f/u

• Complications
  – Degenerative Joint Disease/Osteoarthritis

Case 3

• 12 month old female with temp to 104 at home x 24 hours. Patient has had runny nose and cough for 2 days. Mild decreased po intake.
• PE: HR 130 RR 24 Temp 100.8 BP 96/60 Smiling, jumping up/down on mom’s lap Ears: Lots of wax, can’t see TM’s Throat: red Chest: CTA heart: S1S2 –m Abd: soft, no masses
Case 3

- 16 month old female, no PMH, with fever to 104.5 since yesterday. + runny nose, no cough. Mom says she has been pulling at her ears but “she always does that”
- PE: HR 180 RR 40 BP 96/60 Temp 103.2
- Crying, looks miserable
- Ears: TM’s red B/L ? Loss of landmarks
- Throat: red
- Chest: Patient screams throughout exam
- Heart: S1S2 –m Abd: Pt screams throughout exam
Case 4

- 10 month old male with 2 day h/o episodic abdominal pain. No vomit, has had no stools. Fever to 102. When he has pain, mom says she can not calm him down. Episodes last 10-15 min. In between episodes he seems OK
- PE alert, playful, VSS, HEENT wnl, Chest CTA
- Heart S1 S2
- Abd soft, no masses, does not appear tender

Case 4

- AAS
- Retained Stool
- Rectal exam
  - Guiac negative at pediatrician’s office
Intussusception

• Peak age
  – 5 mo-2 years
• Clinical presentation
  – Crampy abdominal pain
  – Vomitting
  – Current-jelly stool/guaiac positive
Etiology of Intussusception

unknown 96.4% lead point
Meckel's 75.3%
HSP 3.2%
poly 16.1%
lymphoma 3.2%

duplication 2.2%

adapted from Bruce, J Ped Gastro Nutr 6:663, 1987
Case 5

- 11 month old male, h/o Sickle Cell disease, with fever to 103 starting at babysitter’s this am. Mom says he looks more pale than he did this am
- PE: HR 190 RR 40 BP 88/44 Temp 102
- crying in mom’s arms
- No nuchal rigidity
- Chest CTA  Heart S1S2 no m

Case 6

- 15 month old female was in USOH when mom noted she was not putting weight on L foot. No h/o trauma.
- PE: VSS
- Alert playful
- Will not bear weight on Left LE
Case 7

- 20 day old female, no PMH, felt warm at home. Mom took axillary temp = 101. no runny nose or cough
- PE HR 158 RR 28 BP 80/40 T(rectal) 99.8
- AFOF, no nuchal rigidity, chest CTA,
- Heart S1S2 +murmur!!!
- Abd Soft, no masses
Case 8

• 8 day old male, no PMH, decreased feeding, sleeping more for 24 hours. Mom has to wake for feeds. +vomit x 2, looked green, No fevers at home.

• PE HR 156 RR 24 BP 80/38 Temp 100.8

• Alert, looking around

• AFOF Throat wnl ears: ??? Chest CTA

• Heart S1S2 – m Abd: soft, no masses
Case 9

- 14 day old male feeling warm, crying more for past 12 hours, not eating, +loose stools, no vomit
- PE HR 210 RR 34 BP 60/24, T 104
- Sleeping, hard to arouse, weak cry
- Fontanel seems sunken, no nuchal rigidity
- Chest CTA Heart S1S2 no murmur
- Abd soft, no masses

Case 9 - What to do?

- ABC’s!!!
- Airway
- Breathing
- Fluids
- Antibiotics
- Then ask questions
Case 10

• 3 year old female, no PMH, with fever to 103 x 3 days. Decreased activity. No vomit, diarrhea, cough, wheeze, respiratory distress

• PE ill-appearing, no meningeal signs, chest CTA, heart +tachycardia, ears TM wnl, throat wnl, abd soft NT
Case 10

• UA/UC sent. UA wnl
• IV placed; d-stick wnl; IVF given
• CBC
  – WBC: 30,000 with L shift
  – Hgb, Plt wnl
Case 12

- 12 year old male, no PMH, has been having L knee pain for 2 weeks. Intermittent. + limping. No h/o trauma. Pain got much worse today
- PE: T 98.4  HR 88  RR 20
- Alert, mild distress 2nd to leg pain
- L knee exam wnl
Case 13

- 5 year old male, no PMH, with R leg pain since last night. Fever this am to 103. No V/D, difficulty breathing, abdominal pain. No h/o trauma.
- PE: T 102.5  RR 28  HR 140  B/P 110/56
Septic Arthritis vs. Toxic Synovitis

- **Septic Arthritis**
  - Ill appearance
  - Fever
  - Irritable/fixed Hip
  - WBC high
  - ESR/CRP high
  - Joint aspirate
    - WBC >100,000

- **Toxic Synovitis**
  - Well appearing
  - No fever
  - +/-Pain with ROM of hip
  - May be able to ambulate
  - WBC wnl
  - ESR/CRP wnl
  - Joint aspirate
    - <50,000
    - If any
Osteosarcoma-Xray Findings

• Ill-defined mixed lytic and blastic lesion
• Hair-on-end appearance
  – Spiculated periosteal reaction
  – Indicative of rapid growth
Osteosarcoma-Clinical

- Age 10-20 years
- H/O dull pain for several months which suddenly gets worse secondary to involvement of cortex
- Often h/o preceding injury
  - Probably coincidental
- Pain at night
  - Unilateral night-time bone pain BAD