Interesting Pediatric Cases
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Sherri
- 15 year old Caucasian female
- NKMA, no past surgery, normal childhood illnesses, UTD immunizations, no hospitalizations, she did have some chronic back pain, had seen spine, sent to PT and resolved, 3 sibs, all healthy, Dad works constructions, mom stay at home
- Family Hx Dad with hypertension, hx of diverticulitis
- Mother – healthy Sibs healthy Maternal Aunt with BC

First Appointment
- Neck Pain
- MRI spine
- “normal”
- No treatment

3 months later
- c/o "migraine"
- Headaches last 6-8 weeks
- Now worsening and more often 4-5 x per week
- Occur random times of day
- May have to lay down for h/a to resolve
- Has some nausea, headache so bad vomited x 1
- Now has awaken her from sleep
- MRI Brain – normal
- DX: Migraines, treated Imitrex

11 Months Later
- OV injury to left foot
- Some minimal swelling and tenderness
- Hx was at work at veterinary office and stepped on by a horse
- Xray wnl

1 week later
- Returned still with some swelling, pain improving
- Symptomatic tx
1 Month Later
- Seen in ED for Acute Abdominal pain N/V/D
- CT of abd - Circumferential thickening of the terminal ileum, cecum and ascending colon, follicular cyst on left ovary
- D/C Cipro and Metronidazole, she did not complete the whole Tx

5 Days Later
- Seen in ED for Right ankle pain & swelling
- CBC, U/A, TSH, T4, CMP, HCG NEGATIVE
- CRP 2.9 ESR 29
- MRI of ankle – Moderate effusion in tibiotalar joint space with enhancement of synovial lining

3 weeks later
- Low Back Pain
- Right ankle pain and swelling
- “can't stand straight”
- “…very difficult for Sherri to get on or off of exam table…back pain L4-L5 right ankle lateral swelling...acute right ankle pain…”
- To ED for evaluation

Hospitalization/ Work-up
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- Vit D low 20
- T4, TSH, CMP, U/A nml
- C5 C4 NML
- HISTOPLASMOSIS NEG
- QUANTIFERON TB GOLD NEG
- CBC - Fe showed anemia
- SED RATE 96 (0-20)
- CRP 2.9 (<1.0)
- Calprotectin Fecal 52 (<50)

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- Cyclic Citrullinated Pep-IgG & ANA NEG
- EGD/COLONSCOPY
- Patchy ulceration of cecum ascending colon c/with post infection
- HLAB27 – pos’

DISCHARGE DX
- Dx HLAB27 reactive arthritis

REACTIVE ARTHRITIS
- STERILE SYNOVITIS DEVELOPING AFTER A DISTANT INFECTION – USUALLY GU OR GI
- IMMUNE- MEDIATED
- CONTRIBUTING FACTORS:
  - Bacteria or bacterial products in the joint
  - Bacterium-host interaction
  - Local immune response
HLA B 27 REACTIVE ARTHRITIS
- Human lymphocyte antigen B27
- Proteins or antigens found on the surface of the WBC's are indicative of an autoimmune disease
- Most common disorders associated with HLAB27
  - Ankylosing spondylitis, a form of arthritis affects spine
  - Juvenile arthritis
  - Reactive arthritis

Treatment at time of Discharge
- Sulfasalazine
- Gabapentin
- Iron
- Multi-vitamin
- Naproxen
- Vitamin D
- Vitamin D3

LESSON LEARNED
- The Past is where you learned the lesson
- The Future is where you apply the lesson
- DON'T GIVE UP IN THE MIDDLE

Evaluation of the child with Joint Pain and or Swelling

Categories of possible disease associated with joint pain/swelling
- Avascular necrosis and epiphyseal disorders
- Reactive and post infectious arthritis
- Trauma
- Hematologic
- Rickets, metabolic and endocrine disorders
- Infection - Septic arthritis and osteomyelitis
- Tumor - Musculoskeletal neoplasia (osteosarcoma)
- Idiopathic pain syndromes
- Systemic Rheumatologic diseases

Worrisome Findings
- Fever
- Pain characterization
- Precipitating factors (Trauma)
- ROS
- Other medical conditions associated with Arthritis or Arthralgias
- Family History
Emergency Dx
• Septic arthritis or osteomyelitis
• Kawasaki disease

Typical Findings
• Hectic, spiking fever; ill appearance; rash; rapid onset monarthritis; pinpoint bony tenderness
• Hectic fever, irritable infant, sentinel cervical node, conjunctivitis, oral mucositis, peripheral arthralgia/edema, rash carditis, peeling fingertips

Emergency Dx cont’d
• Neoplasia
• Nonaccidental injury

• Irritability, pallor, unexplained bruising, bone pain (esp nocturnal)
• Disparities betw hx given and features on exam, irritability, pallor, unexplained bruising and other injuries, bone pain

pGALS musculoskeletal screen
• Pediatric Gait Arms Legs Spine
• Simple quick musculoskeletal screening tool for school age child
• https://www.youtube.com/user/MRCPERevision/videos

THANK YOU