05/03/21 Morning Report with @CPSolvers

***Case Presenter**: Ann Marie Kumfer (@AnnKumfer) **Case Discussants**: Taylor Ingber and Dhruv Srinivasachar (@TheRealDSrini)*

CC: pain and swelling in left shoulder.

HPI: 30 yo male presenting with increasing pain and swelling in the left shoulder and neck. Neck pain got worse with extension, left lateral rotation and swelling, that was going on for 6 months, and worsened in the past 2 months. The pain also got worse by moving the shoulder. He also has loose stools and chills.
He denies fevers, night sweats, oral lesions, shortness of breath, abdominal pain, nausea, vomiting, weight loss or headaches.

PMH: 7 mo ago: hospitalized with leukocytosis, CT showed several small abscess in the liver and cystic mass in the spleen & retroperitoneal LDNP
Aspiration of the abscess -> negative for anaerobic /aerobic bacteria.
TTE EF with 40-45%
He was discharged on fluoroquinolone and metronidazole for 4 weeks.
Poor dentition, previous teeth abscesses, no current abscesses.

Meds: none
Fam Hx: none

Soc Hx: active tobacco use, previous IV drug use, last use 2 years ago.

Health-Related Behaviors:
Born in the Northeast, traveled to Florida and Mississippi, no travel outside US, no TB exposure, no animals or unusual exposures at home.

Allergies: none

Vitals: **T**: 37.6 **HR**: 87 **BP**: 108x73 **RR**: 20 **SpO_2**: 99% room air
Exam:
Gen: appeared well
HEENT: left pupil miosis and left ptosis, poor dentition and missing teeth, left neck supraclavicular 3 cm lymph node, tender to palpation, with erythema, and small cervical anterior LNs also palpated
CV: regular, no murmur
Pulm: clear
Abd: unremarkable, no hepatosplenomegaly
Neuro: normal aside from previous deficits
Extremities/Skin: normal

Notable Labs & Imaging:
Hematology: WBC: 14,600 N predominance Hgb: 12.6 Plt: 387,000
Chemistry: Na: 135 K: 3.6 Cl: 104 Bic 28 BUN: 12 glucose: normal Cr 0.6 Ca 8.6 Alb 3.2 Tt pr 6.9 AST/ALT/Alk-P/T. Bili: -> all normal CRP 48 LDH 137 Urine toxicology negative TSH normal
- Blood cultures negative, HIV negative, Bartonella IgG IgM negative Toxoplasma negative RPR negative Urinary Histo antigen negative. ANCA, total immunoglobulins and subclasses: normal
Imaging:
- **CT/ Neck/ soft tissue with contrast:** inflammatory changes in the sternocleidomastoid, L scalene muscles, L supraclavicular fossa with multiloculated peripherally enhancing fluid collections, and associated lymphadenopathy.
- **CT of the chest/abdomen/pelvis with contrast**: heterogeneous fluid collections in the L chest wall and liver and spleen with central necrosis,, several scattered pulmonary nodules in the left lung measuring 1.4cm in diameter and localized in the lingula
- **Repeated TTE:** normal EF, no valvular lesions.
- **Excision LN biopsy:** necrotic tissue, otherwise unremarkable, aerobic and anaerobic, and fungi negative.

Follow-up:
- Discharged, on ATBs for 2 months, repeated core biopsy L cervical node: prominent acute/chronic inflammatory with necrosis, fungal and bacterial culture negatives. Steroids improved symptoms a little bit.
- 3 months after hospitalization: fever, sweating at nights, worsened adenopathy, adenopathy again has worsened (increased in size). Left eye with ptosis/miosis.
- Excision LN biopsy: positive for cd15, cd30, negative for CD3, CD20, and positive for Reed-Sternberg cells. Final Diagnosis: Hodgkin Lymphoma.

Problem Representation: 30 yr old M w/ hx of retroperitoneal lymphadenopathy presents w/ subacute L neck/shoulder pain; found to have multiple sterile abscesses and necrotizing lymphadenopathy.

Teaching Points (Gurleen):
- **SHOULDER/NECK PAIN:** *time course is key* (acute: MSK, trauma, chronic: MSK vs. neurologic). Anatomic approach, referred pain.
- ***Framing the patient & clinical syndrome***
  -Problem representation: Who is the patient (age, pertinent PMH) and what is this illness (time course, symptoms)
- **IMADE for inflammation:** infection, malignancy, autoimmune, drugs, endocrine. Funky if isolated leukopenia, eosinophilia, etc.
- ***Collecting clues:*** miosis, ptosis → Horner's syndrome
- **HORNER'S SYNDROME:** Anatomic approach: 1st order hypothalamus to intermediolateral cell columns (intracranial). 2nd order: T1 spinal cord to cervical sympathetic chain to superior cervical ganglion (Pancoast tumor, mediastinal lymphadenopathy. 3rd order: follow carotid artery
- **LYMPHADENOPATHY: *Think time and location.*** Reactive from infection vs. malignant
  -Thoracic duct drains into L supraclavicular
- ***Using absence of abnormalities to guide reasoning.*** Ex: no eosinophilia
- Systemic nature w/ inflammatory changes in muscles: Infection > Malignancy.
- **W's for no improvement: W**rong dx, **w**rong bug (atypical - NTM or difficult to culture), **w**rong drug. *Immunocompetent host → certain pathogens less likely*
- **NECROTIZING LYMPHADENITIS**: TB, malignancy - lymphoma, non-infectious (Kikuchi disease-cervical lymphadenopathy).