03/22/21 Morning Report with @CPSolvers

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CC: Acute onset back pain

HPI: 49M w/ diffuse large B cell lymphoma presents with acute lower back pain for 5 days. Pain is localized in the L paraspinal gluteal region and R, exacerbated by movement, radiated to L leg.
He presented to the ED twice and discharged with oral opioids.
Denies: Fevers, chills, urinary retention or incontinence, recent trauma.
Constipation probably due to opiods.

PMH:
- Diffuse large B cell Lymphoma 4 mo prior, complete R CHOP 6w prior, complicated by neutropenic fever.
- S aureus bacteremia.
- Re started chemotherapy 9 days prior.

Meds:
- Oral hydromorphone and oxycodone.
- 6w IV Cefazolin

Fam Hx:

Soc Hx: Lives alone, no alcohol, tobacco abuse

Health-Related Behaviors:

Allergies:

Vitals: **T**: 37.2 C → 39.8 (ED) **HR**: 110 **BP**:140/92 **RR**: 20 **SpO_2**: 100 on room air
Exam:
Gen: Diaphoretic and uncomfortable, in bed
HEENT: No cervical lymphadenopathies
CV, Pulm and Abd: Normal
Neuro: Tenderness L2 L4 region lumbar spain. + pain leg raise with radicular pain L > R. Normal speech, 5/5 strength 4 extremities, normal rectal tone. + anal wink.
Extremities/Skin: Picc site w/o eritema.
Urine: PVR at the bedside with 240 mL of urine.

Notable Labs & Imaging:
Hematology:
WBC: 13 (N predominance, L 1200) (baseline usually elevated) Hgb: 12.5 Plt: 388
Chemistry:
Na: 138, K: 3.7, Cr: 0.91, Ca: 9.6, Phos: 3.8, Uric acid 4.3
UA: + leukocyte esterase, - nitrates, > 180 WBC, 0 RBC, 4+ bacteria on microscopy.
Blood cultures: Gram + in clusters
Urine culture: Gram + in clusters
Imaging:
CT lumbar spine: Mild L2 superior and deformity w/ unclear clinical significance.
TTE: Nor valvular vegetations
MRI lumbar spine w/ contrast: L sided multiloculated abscess w/ surrounding enhancement, inflammation extended epidural space L1 L2 and L2 L3 due to the abcess (vertebral body and disc) that communicate with the epidural space.
Image drainage was performed and cultures showed MRSA
Final Dx: S. Aureus bacteremia due to psoas abscess complicated by lumbar vertebral osteomyelitis and discitis, involvement of the epidural space and descending UTI.
He likely seeded his psoas muscle during his prior episode of bacteremia and the infection progressed in the interval 4 w since completion of therapy, leading to extension into the vertebral and epidural space as well as bacteremia.

Problem Representation: Middle-age male w/ PMHx of diffuse large B cell lymphoma, chemotherapy and bacteremia presents w/ acute-onset of lower back pain. Cultures showed gram + cocci in clusters.
Final Dx: S. Aureus bacteremia due to psoas abscess w/ lumbar, epidural and UTI complication.

Teaching Points (Kiara):
- **Red flags:** Hx of cancer, radiation, paraneoplastic, transverse myelitis, metastatic involvement.
- **Back pain:** Muscle (abscess), bone (mets, abscess), infection (due to immunocompromised), neuro.
  Questions for consideration: Is this real back pain? → Ao dissection, retroperitoneal bleed, pielonefritis, perinephric abscess.
- **Infectious possibilities:** Vertebral abscess, endemic micosis, osteomielitis, TB reactivation, aspergillus, bartonella, crypto.
- With presence of bacteria in UA, make sure is not disseminated bacteriemia (S. Aureus), possibility of resistance due to Hx of bacteremia and treatment.
- Bone destruction, lymphoma (Vit D mediated): High serum Ca.
- **Make sure:** There's no endocarditis (TEE) or other source of infection (metastatic site), to cover resistant organisms, enterococcus.
- **Respect S. Aureus**