



06/27/24 Morning Report with @CPSolvers



“One life, so many dreams” Case Presenter: Sameer Sidiq (@) Case Discussants: Rabih (@rabihmgeha) and Vijay (@vijaybramhan)

Chief Complain: 55yo male, presenting with **dyspnea & left sided chest & back pain**

HPI:
16 days ago: percutaneous nephrolithotomy for staghorn calculus, causing ureteral obstruction. **Urinary retention w/ Foley catheter.** 1 week later, presented w/**dysuria** and **L flank pain.** Foley removed after voiding trial. Oral analgesia, cefpodoxime and tamsulosin given, no change. Over next few days, **exertional dyspnea & chest pain, worse with deep breaths.** Progressively worsening up to sx at rest. **No other symptoms** on systemic inquiry including no cough, rashes, diarrhea, fever, nausea & vomiting

PMH:
T2DM (last A1C 5.5%)
Hx of nephrolithiasis
16 days ago:
percutaneous nephrolithotomy for staghorn calculus

Med:
Insulin

Fam Hx:
Type 2 DM (mother)

Soc Hx:
Former smoker (5py, quit 30 years ago)

Health-Related Behaviors:
None

Allergies: none

Vitals: T:98.5°F HR 89: 121/74 BP: RR: **21** SpO2: **96%**

Exam:
CVS: RRR, no murmurs, rubs or gallops. no JVD
Pulm: Tachypnea, decreased breath sounds in left lung
Abd: LLQ tenderness to palpation, L costovertebral angle tenderness to palpation
Extremities & skin: No edema or rash.
Surgical site: clean and no signs of infection.

Notable Labs & Imaging:

Hematology:

WBC: 8.4 (normal differential); Hb 13.2: Plt 339

Chemistry:

Na: 140 K: normal Cl: 107: HCO3 23: BUN:26 Cr **1.5** (baseline 1) GFR 55

Glucose: 147 Ca: 9.4; Alk-P: normal; Albumin: 4

Urinalysis: **2+ leuks. 2+ blood. RBCs > 182; WBCs > 175**

RVD negative; Blood Culture and Urine MCS: no growth

Imaging:

CT abdomen & pelvis with contrast: **left hydroureteronephrosis.** (*Thickening suggestive of UTI or reactive inflammation post procedure*)

CXR: Post-op day 16: Left sided **pleural effusion** (absent on CXR 8 days prior)

CT chest: **Large left pleural effusion w/ left lower lobe collapse.**
Left thoracentesis: **7700 RBCs and 1300 WBCs. PMNs 69%. LDH 63 (serum 160) protein 0.4 (serum 7.8).** Negative cultures.
Pleural fluid creatinine: **7.4** (Serum 1.3)

Final diagnosis: **Left sided urinorhox**

Problem Representation: 55 yo male w/well controlled T2DM on Insulin,, 16 days post percutaneous nephrolithotomy for staghorn Calculi. Now with left sided flank and chest pain along with dyspnea, found to have **left hydroureteronephrosis and a massive left transudative pleural effusion, ultimately diagnosed with a left urinorhox**

Teaching Points (Elena):

1. Complication of the procedure or 2 different processes
2. **Dyspnea + Chest pain:** cardiopulmonary disease process or mediastinal disease → as lungs themselves do not cause pain (consider processes of the heart, pleura, chest wall)
- Left sided nature: **pleural disease**, abdominal process (previous procedure), skin process
- **Back pain:** catastrophe like dissection
- **Pleural processes: air (pneumothorax) vs ischemia (PE) vs inflammation** → unilateral CP + SOB is very likely to be a pleural process
3. **T2DM:** macrovascular disease
4. **Vitals/physical examination:** tachypnea (w/o sign. hypoxemia), decreased breath sounds in the left lung + left sided flank tenderness → air VS fluid in the left lung (POCUS: PE, gas, pleural effusion)
5. **CT chest w/ or w/o contrast:** Most of the time w/o contrast will be sufficient as air is a great contrast medium. In 3 instances we need contrast: to look for vessels, see inflammatory pleural disease, see the mediastinal structures better)
6. **Pleural fluid analysis:** Light's criteria (protein/LDH) for exudative (inflammatory, PE) VS transudative process (heart failure, usually blood vessels are fine, but high pressure - LDH and protein dont leak) - one sided process makes exudative more likely
7. **Labs:** no overt inflammation, mild elevation of creatinine, some RBCs/WBCs + hydroureteronephrosis on CT (post-procedural?)
8. **Unilateral hydronephrosis:** Ureter (obstruction due to **stones, strictures, mass**), bladder
9. **Pleural effusion in the context of obstruction:** Leakage due to pressure in the context of ureteral obstruction (**urinorhox**) - confirmed by the transudative effusion + elevated pleural fluid creatinine