10/31/23 Morning Report with @CPSolvers

"One life, so many dreams" ***Case Presenter****: Dr. Scott Biggerstaff (@medpedspocus)* ***Case Discussant****: Yazmin Heredia (@minheredia) and Debora Loureiro @deboraclourerio*

	Case # 1	Case # 2	Case # 3
CC	15-month female w/ abdominal distension. Vomited with last 2 cares, fussier.	63 yo M w/shortness of breath on 2L NC	92 yo M who is still nauseous after ondansetron and abdominal distension
HPI	Recent admission for pyelo, readmission for persistent fevers, treated with ceftriaxone	Admitted after fracture,right total hip the previous day. Home inhalers ordered, no respiratory symptoms on arrival	Patient endorsed 1 day of nausea/ vomiting/diarrhea after eating gas station cheese curds. He feels alright, just nauseous. Endorses some lower belly pain.
PMH	Agenesis of corpus callosum, ventriculomegaly. Duplicated left ureter with left hydroureter, ureterocele	COPD, HTN, CKD3a	HTN and PAD
PE	BP: 93/44, HR: 63, RR: 36, Temp: 99.9 °F Distended abdomen with palpable suprapubic mass, fussy child with normal tone moving all limbs, cap refill < 2 seconds	BP: 152/86 , HR: 92, RR: 23, Temp: 98.1 °F Alert, uncomfortable tachypneic with supraclavicular muscle use. No wheezing, rhonchi, or crackles. Possible JVP but think it might be high HRRR without extra sounds or murmurs. No peripheral edema	BP: 133/76, HR: 106, RR: 16, Temp: 97.5 °F Abdomen is distended and patient agrees much bigger than normal Tender to palpation LLQ.
LABS	CBC, BMP nl. CRP 193 mg/L (nml <5) Culture from prior admission with E coli sensitive to ceftriaxone UA: nitrate +, LEU +, WBC >182, RBC >182	CBC, coags prior day nl. eGFR at baseline (45-50) No prior echo. ECG on admission NSR. COVID negative	CBC with leukocytosis to 14, renal panel with mild hypochloremia, bicarb 17 with normal anion gap. No prior LFTs, no lactic acid, no inflammatory markers. No abdominal imaging performed.
WORK UP	UROLOGY CONSULT: Patient voiding spontaneously. RUS looks the same as 4d ago, though does raises question about adequate clearing of infection. Straight cath with 270 mL output (nl vol 90-120 mL at 15 mo). Voiding cystourethrogram showed left sided reflux and high-volume post void residual. Foley placed. Urology performed cystoscopy	IV connected with pump running at 125 mL/h. Stopped IVF Ordered furosemide 80 mg IV once 2 L of urine output in the next 90 minutes, off 02 and RR/WOB decreased	Admitted for IVF therapy.

Teaching Points (Tansu):

Basic principles of POCUS:Limited views (4-5). It doesn't replace consultative imaging. Focused questions and answers (hypothesis driven); Correlate clinically.

15 m/o F: GU abn. (L-Ureterocele): At risk for Complicated UTI. Despite abx - UA: infectious w/ nitrite, L.esterase, WBC- UCx- E.coli. Not clearing the inf. 2/2 U-stasis. **Renal USG:** Distended **bladder** visualized best. **Kidneys**: When vasculature is prominent, use color doppler→ see its vessels, not hydronephrosis. **Anechoic** pockets in the kidney- hydronephrosis, hydroureter. Sagittal view: ureterocele bulging into bladder. **Hyperechoic** ureterocele- different kind of fluid. **Physical exam:** 10 minutes prior urine-output, distended abdomen, palpable mass → What next?→ **Do post void exam- bladder is still distended post urination, place a straight cath** → Bladder USG. Obstruction preventing from emptying → VCUG, cystoscopy: pocket drained pus from the ureterocele d/t treatment failure (abx cannot penetrate abscess, abx resistance, susceptibilities of the m.o.). **63 yoM, COPD, HTN, CKD: Echo** Rules of 3- RVOT, aorta, and LA should be the same size. Endomyocardial excursion, thickening of the walls w/ each excursion. **Mitral valve EPSS:** Normal < 1 cm (on M-mode), has a high send. for abnormal LVEF. **Parasternal short:** All walls of the LV can be seen. Normal: RV is curved septal shaped; LV is ball/donut shaped. Flat RV- chronically elevated pulmonary pressures. RV: ⅔ of the size of LV. Valvular competence can be checked with color flow. RV-function- normal: longitudinal contraction like peristalsis. TAPSE is performed from A4C window using M-mode across the annulus to check longitudinal contraction. TAPSE > 16 mm (normal); < 16 mm → reduced RV systolic fn. **R- Lung:** Ribs are handrails. B-lines can be 2/2 to subpleural consolidation, pneumonia. CKD stage 3- IVF was running. **IVC assessment:** collapsibility & diameter. Normal: IVC <= 2 cm, should collapse 50% in inspiration- not collapsing? High RA pressure. Color flow/doppler Hepatic V.: flow should be blue. Red: towards/blue: away from the probe. Jugular V distended w/ normal heart. Pt got bloated w/ fluids. Stop IVF, start furosemide. Pitfalls w/ IVC: 1) Elliptical not circular 2) Vessel looks thinner when scanned perpendicularly 3) Increase in short, not long diameter → round IVC. **92 yoM, HTN, PAD. NV + diarrhea, 1 day.** Admitted for IVF. Vitals wnl. No abd imaging. What next? Abdomen distended, bigger than normal. Prioritized ddx: VIPO.

Questions to answer with USG:

fluid, blood? order further studies? RUQ and suprapubic, LLQ (patient is experiencing symptoms) → lack of peristalsis → ileus? Anechoic → fluid? Air does not transmit USG, scatters the signal. Look for peristalsis → obstruction . >=3 cm small bowel is dilated. Normal bowel: Peristalsis should be small moving. White specks: air bubbles in the fecal matter, gas artifacts.