9/6/23 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Zaven (@sargsyanz) ***Case Discussants****: Steph (@StephVSherman) and CPSolvers Team*

CC: 50 yo woman w/ cirrhosis comes in for dyspnea

HPI: Diagnosed with **cirrhosis** 2 years ago. Initially w/ abdominal distension → scan → cirrhosis. Etiology alcohol-associated. Mostly doing okay since.

2-3 wks ago baseline respiratory deterioration → severe **shortness of breath at rest**, **orthopnea**, **swelling of legs and abdomen**. No cough, no chest discomfort, no fever, no chills, **weight gain +ve**, no exposures, no prior UTI, no recent travel, no change in meds. Looks healthy, stopped drinking 1 year ago, lives with spouse, used to work until 2 years ago. Good social support.

PMH:
Cirrhosis 2 years ago

Meds:
Spinono 50 mg
Furosemide 20 mg

Ran out of prescription recently

Fam Hx: n/a

Soc Hx: Previously used to drink alcohol (2 yrs ago), no longer since cirrhosis diagnosis

Health-Related Behaviors:

Allergies: NKA

Vitals: T: 97 F **HR:** 100, regular **BP:** 110s/70s **RR:** mid-20s **SaO2:** 92 on RA

Exam:
Gen: tachypneic, alert, communicating well, stigmata of liver cirrhosis (spider angiomata, jaundice)
HEENT: n/a
CV: elevated JVP, systolic murmur at left sternal border
Pulm: clear on left side, **absent breath sounds on right, dull to percussion, dec fremitus**
Abd: moderately distended
Extremities/skin: severely swollen with pitting edema

Notable Labs & Imaging:
Hematology:
WBC: 11k Hgb: 9/10 Plt: 80k
Chemistry:
Na: **121** K: 3.4 Cl: BUN: 25 Cr: 1.2
AST: low ALT: low **Total bili: 4** INR 1.6
Imaging:
CXR: Well-inflated left lung, **near complete opacification of right hemithorax**
POCUS: **right pleural effusion**, little ascites
Echo: hyperdynamic LV, valves normal, RV normal. **Dilated IVC**.
Pleural studies: protein and LDH v low → **transudative effusion**, cell count 70-80 (mostly **lymphocytes**), cytology and culture -ve

Dx: **hepatic hydrothorax → repeated thoracenteses but reaccumulating effusion [refractory hydrothorax], worsening Cr → albumin (Cr stabilized) → liver transplant**

Problem Representation: 50 YO woman w/ alcohol-associated cirrhosis diagnosed 2 years ago is presenting with dyspnea for 3 wks progressing to SOB at rest. Absent breath sounds on P/E and right pleural effusion on POCUS. Diagnosed with hepatic hydrothorax.

Teaching Points:
- Dyspnoea > general approach heart, lungs, metabolic, chest wall, neuromuscular, etc. Then in cirrhosis, think of ascites/abdominal distension, hepatic hydrothorax, hepatopulmonary syndrome, anemia, cirrhosis-related cardiomyopathy.
- Adequate diaphragm mobility is essential for comfortable breathing. Massives ascites impair its mobility > dyspnoea
- Elevated JVD in cirrhotic pts > think of concurrent etiologies that lead to elevated RT sided congestion/overload and other causes such as portopulmonary HTN
- Pleural fluid analysis could be chylous in hepatic hydrothorax. Chylothoraces are usually exudative, but they're usually transudative in hepatic hydrothorax.
- Hepatic hydrothorax usually RT sided due to the diaphragmatic defect. Pleural fluid analysis is very imp to be done to rule out complications/infections.
- Cirrhotic pts could have JVD in the absence of cardiac causes. Metabolic changes in cirrhosis leading to volume overload is a potential explanation of the JVD.
- Hepatic hydrothorax: same rx as ascites.
- Hyponatremia in cirrhotics (defined as < 130.) In the right clinical context, it is usually due to a physiological response to low EABV > elevated RAAS and appropriately elevated ADH