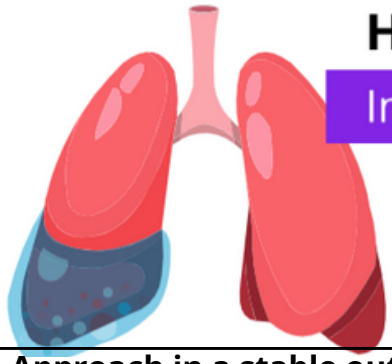

Hydrothorax in a patient with cirrhosis

Initial Work-up

Patient with known cirrhosis with new onset or known hydrothorax

Approach in a stable outpatient

- Work through diagnosis, general and specific management
- Urgency dictated by individual patient presentation

Approach in a patient who has come to the ER or a patient with worrying signs or symptoms

- Worrying signs include chest pain, fever, worsening renal function, confusion, abdominal pain
- **Do a same day thoracentesis**

What do you send the fluid for?

Basic fluid workup (in all patients every time):

Bloodwork:

- Basic labs (CBC, electrolytes, creatinine, albumin, PT, PTT, bilirubin, ALT)
- Blood cultures (if suspicion of SBPleuritis)

Pleural fluid analysis:

- Fluid cell count and differential
- Fluid culture & sensitivity (inoculate fluid directly into blood culture bottles to increase culture sensitivity)

See SBPleuritis Treatment

In the absence of pneumonia, SBPleuritis is present if:

- Polymorphonuclear cell count >250 cells/uL with a positive pleural culture
- Polymorphonuclear cell count >500 cells/uL with a negative pleural culture

Extended fluid workup (additional analysis as required):

Bloodwork:

- Basic labs (CBC, electrolytes, creatinine, albumin, PT, PTT, bilirubin, ALT)
- Blood cultures (if suspicion of SBPleuritis)

Pleural fluid analysis:

- Fluid cell count and differential
- Fluid culture & sensitivity (inoculate fluid directly into blood culture bottles)
- Fluid protein, albumin, pH, LDH

See Light's criteria calculator

- Findings with cirrhosis and portal hypertension: SAAG>11 g/L, protein<25g/L, transudate as per Light's criteria. Effusions are right-sided in ~80% of cases
- If a non-cirrhosis etiology is suspected, additional testing may be needed: Fluid cytology (malignancy), lipase (pancreatitis), triglycerides (chlyothorax), bilirubin (bile leak), TB culture (tuberculosis)