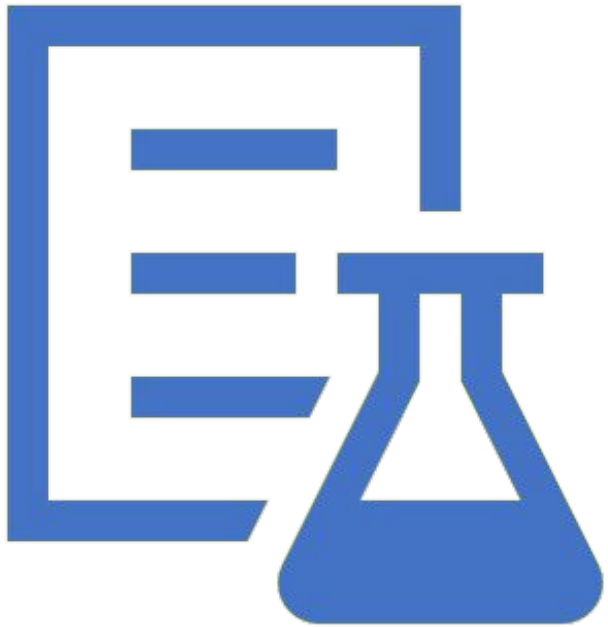

# APPROACH TO ASCITES


- By Nadia Khamees , MD
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- **A 50 years old lady presented to the clinic with 3 weeks history of abdominal distension that increased over the last 4 days ..what further questions regarding SYMPTOMS are you going to ask about?**

- You have to ask about
- 1. Symptoms of the ascites  itself : abd discomfort or pain , SOB, wt gain , early satiety.
- 2.Heart related: Orthopnea , PNDs, exertional dyspnea, chest pain, LL swelling
- 3.  Cirrhosis related: Jaundice, itching, fatigue confusion , gi bleeding ...etc
- 4. Frothy urine , any hx of renal disease
- 5. Diarrhea , steatorrhea to rule out protein losing enteropathy
- 6. Wt loss ,loss of appetite  epigastric pain .
- 7. Also ask about symptoms of spontaneous bacterial peritonitis: fever , chills , rigors, abd pain .

- **What other questions in history are you going to ask about that may help you to  identify the cause of his ascites ?**

- 1. DM, HTN, Dyslipidemia, smoking , valvular heart disease.
- 2. Family or personal history of viral hepatitis or any chronic liver disease.
- Illicit drug use or tattoos , alcohol
- 3. Any known renal disease or enteropathy .
- 5. Family hx of GI or gyne malignancies.

- So our patient had abd distension of 3 weeks , mild abd discomfort with no pain or fever. Mild exertional symptoms . Mild yellowish discoloration of sclera and itching and easy fatigability .

- **What findings in physical exam are you going to look  for in this patient?**

- Vitals to look for fever( SBP) , border line BP ( might indicate cirrhosis)
- Jaundice, spider angiomas, caput medusa, paler erythema, splenomegaly gynecomastia...etc)
- Raised JVP, LL swelling, pulmonary crackles , murmurs)
- BMI , lymph node enlargement, muscle wasting, hepatomegaly )
- Also look for signs of hepatic encephalopathy ( fetor hepticus, astrexis , altered LOC)

So our patient's vitals  were( BP 100/60 , 36.5 C , 90bpm, 18 RR)

- She has spider angiomas , mild tinge of jaundice, splenomagaly
- Normal JVP
- No basal crackles
- + 1 LL swelling

- **What blood test are you going to send for this patient ?**

- The following blood tests were sent for the patient:
- CBC KFT LFT INR
- Viral hepatitis panel( HBSAg , HCV AB )
- Hba1c
- Fasting lipid profile
- Autoimmune work up( ANA, ASMA, Anti liver kidney microsomal ab)

- **Our patients  labs came as**
- **Hg 10**
- **Wbc 3.5**
- **Platelets  110**
- **AST 20**
- **ALT 18**
- **INR 1.4**
- **BUN 29**
- **creatinine 0.9**
- **K 4**
- **Na 132**
- **Other labs are pending**

- **What imaging studies are you going to do for our patient?**

- US is the most cost effective
- CT might be indicated in certain cases if you are suspecting malignancy
- Echocardiogram can be done if you are suspecting heart disease as a cause for ascites

- Abd doppler  US was done for the patient ,and showed coarse liver with 16 mm portal vein ( more than 13mm) and moderate amount of ascites .

- **Now we will move to the peritoneal fluid analysis...**

- **Peritoneal tapping was done for the patient with 4 liters drained and samples sent for analysis . What are you going to analyze the sample for ?**

| | SAAG (g/dL) | |
|---|---|---|
| | ≥ 1.1 | < 1.1 |
| **Total protein (g/dL)** | | |
| < 2.5 | Cirrhosis | Nephrotic syndrome |
| | Acute liver failure | |
| ≥ 2.5 | CHF | Peritoneal carcinomatosis |
| | Constrictive pericarditis | TB peritonitis |
| | Budd-Chiari syndrome | Pancreatic ascites |
| | Veno-occlusive disease | Chylous ascites |

- Our patient's SAAG was 1.8
- Total protein 2.1
- WBC  50 with 20% neutrophils

- If you established the diagnosis of liver cirrhosis induced ascites...what would be your first line management steps ?

- So first ..you have to insure salt restriction ...

- How much you have to restrict the NA intake?

- 2 grams ( 88 meq) daily

- Now next you can start diuretics..
- What diuretic to start with? What are the maximum doses?

- Spironolacton  (100…….400 mg daily)
- +/- furosemide ( 40…..160 mg)

- Always monitor KFT AND electrolytes during diuretic therapy
- BUT in selected patients ( border line kidney function  or K level you have to adjust your doses , IT IS NOT A BIBLE

- Now if your patient reached the maximum dose or the maximum tolerated dose( because of side effects) ..what is next?

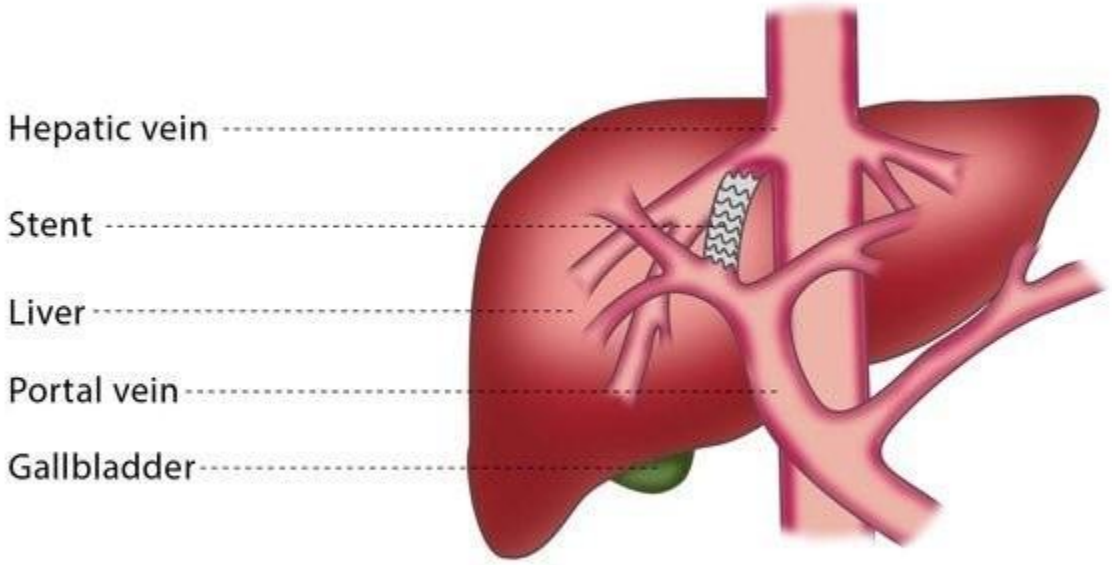
- Large volume paracentesis

- **What is the albumin replacement rule ?**

- **8 grams of 25 % albumin for each litre removed.**

- **If your patient became visiting the hospital very frequently for paracentesis..what can you offer him next?**

**Transjugular intrahepatic portosystemic shunt (TIPS)**



# Thank you