

### Question 17 – Week of November 26

You are asked to evaluate a 43 year old man with cirrhosis secondary to chronic hepatitis C infection complicated by ascites and progressive dyspnea. He has been requiring large volume paracentesis (6-8 liters) every 2 weeks despite dietary sodium restriction of < 2,000 mg/day and treatment with spironolactone 200 mg daily and furosemide 80 mg daily. He has hepatic encephalopathy that is controlled on lactulose therapy.

On examination he has a tense abdomen and diminished breath sounds in the right lung base and mild dyspnea at rest.

Laboratory studies: albumin 2.8, Na 124, Creatinine 1.4, bilirubin 1.6, INR 1.3, MELD score is 14. Pleural fluid studies, 200 leukocytes/ml 5% neutrophils, total protein 1.

A chest X-ray shows a moderate sized right pleural effusion. Liver doppler ultrasound reveals a cirrhotic appearing liver, large ascites, splenomegally and patent portal and hepatic vasculature.

Which of the following is the best management option for this patient?:

- A. Increase the diuretics
- B. Place a percutaneous drain in the right pleural space and continue large volume paracentesis while initiating liver transplant evaluation
- C. Refer to interventional radiology for consideration of transjugular intrahepatic portosystemic shunt placement
- D. Add a vasopressin receptor antagonist to his treatment regimen
- E. Refer to surgery for consideration of portocaval shunting .

**Answer: C**

The patient's hyponatremia and renal insufficiency are likely to worsen with increased doses of diuretics. Placement of a pleural drain and transplant evaluation is not ideal due to low MELD and a long anticipated waitlist time with the added risk of complications from an indwelling drain during this time. While there has been data suggesting the use of vasopressin receptor antagonists could reduce the severity of diuretic refractory ascites, they are not indicated for this condition and would not have a role with a serum Na > 120 in the absence of symptomatic hyponatremia. Shunting would be ideal for control of both ascites and symptomatic hepatohydrothorax in this case. Surgical shunts are only recommended in patients who are not candidates for TIPS, liver transplant or repeated paracentesis. (1)

Reference:

1. Runyon,BA. *Management of adult patients with ascites due to cirrhosis. AASLD guideline, Hepatology 2004; 39: 1-16*