CA 125 and Ascites: Using Clinical Reasoning to avoid Further Decompensation

Domonique Smith, MD (LSUHSC)- dsmi57@lsuhsc.edu

Case Presentation:

74-year-old woman with medical history of CAD presented to the ED with a primary complaint of right sided back pain, radiating to RUQ of abdomen. Onset weeks prior to presentation, but acutely worsened overnight. Upon examination, family endorsed decreased appetite, unintentional weight loss, progressive abdominal distension, and functional decline 6-8 months ago. Has chronic occasional productive cough with yellow phlegm, no hemoptysis. Only medication is Aspirin 81 mg. Family history significant for non-alcoholic steatohepatitis (NASH), HCC, and lung cancer. Denied history of alcohol and IV drug use. Smoked 2ppd cigarettes for 50 years, quit >20 years prior. Reported progressive non-painful bilateral lower extremity swelling with associated clear drainage. Ascites, hepatomegaly, and shifting dullness appreciated on exam and tenderness to palpation of RUQ. CT abdomen w/contrast revealed large necrotic lung mass 6.7 cm w/multiple pulmonary nodules, right-sided pleural effusion, multiple lymph nodes in upper abdomen and celiac axis, para-aortic lymph nodes, significant ascites, and focal fatty infiltration of the left lobe of the liver. No abnormalities of the pelvic organs. Negative hepatitis panel, LFTs within normal limits. Abdominal ultrasound revealed a cirrhotic, enlarged liver. Diagnostic paracentesis not concerning for SBP and cytology without concerns for malignancy. CA 125 was checked due to concerns of ovarian malignancy. CA 125 elevated, which further increased concerns for ovarian malignancy. Pelvic US without abnormalities and transvaginal ultrasound deferred by patient due to discomfort. While inpatient, she received treatment for decompensated cirrhosis and pneumonia. Discharged home with pulmonology (evaluation of lung mass), GYN/ONC, palliative, and hepatology follow up.

Discussion:

While there are numerous causes of ascites, the most common cause in the US is cirrhosis (>80%). Other common causes include malignancy (10%), heart failure (3%), and tuberculosis. Less than 5% of patients will have >1 cause for ascites at time of presentation. Symptoms most associated with ascites secondary to cirrhosis are early satiety, dyspnea, and progressive abdominal distension, which are non-specific and can be seen with many other etiologies. The presence of spider angiomas, palmar erythema, and abdominal collaterals should lead the clinician to identify cirrhosis as underlying cause. Clinical presentation/HPI, medical history, social and family history, age, and physical examination are important in differentiating the most likely cause from the least likely causes in addition to imaging.

It is well known that elevated CA-125 is not only associated with ovarian malignancy, but also ascites 2/2 cirrhosis. The cause of elevated CA 125 in ascites is not well understood, but possibly 2/2 to omental stretching. It is not recommended to check ca 125 levels in those with ascites, as it is commonly elevated. Given similarities of the presentation of both ovarian cancer and decompensated cirrhosis, evaluation of CA 125 levels may lead to inappropriate medical evaluation to pursue the diagnosis of ovarian cancer including transvaginal ultrasounds and exploratory laparotomy which can lead to further decompensation in those with cirrhosis. This case highlights the importance of using a patient centered approach, clinical reasoning, and evidence-based reasoning for guidance when evaluating patients with ascites with a non-specific presentation.