



Not All Ascites is from Cirrhosis

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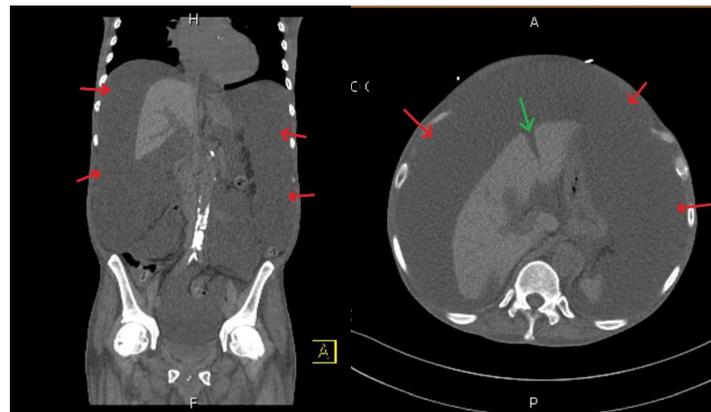
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Background

- Cirrhosis is the commonest cause of new onset ascites
- Other uncommon causes of ascites must be sought in cirrhotic with atypical ascitic fluid characteristics, esp SAAG<1.1

Case Presentation

- 59/M with a past medical history of alcohol misuse, CAD, Hashimoto's disease s/p radioablation therapy with subsequent hypothyroidism, presented with chest pain and abdominal distension.
- ACS was ruled out, and chest pain was attributed to a GI etiology. A contrast CT of abdomen showed large volume ascites and widened hepatic fissures suggestive of a shrunken cirrhotic liver.
- Paracentesis revealed SAAG <1.1, total protein 4.2, with negative cultures and cytology. TSH - 86 with T4 <0.1 and constellation of symptoms (cold intolerance, weight gain, puffiness) pointed to severe hypothyroidism.
- Ascites resolved with thyroid replacement therapy confirming myxedema ascites



Coronal section showing ascites (red arrows)

Axial section showing widened hepatic fissure (green arrows) and ascites (red arrows)

SAAG>1.1	SAAG<1.1
Cirrhosis	Peritoneal malignancies
CHF	Tubercular Peritonitis
Alcoholic hepatitis	Pancreatic ascites
Hepatic metastases	Nephrotic Syndrome
Budd-Chiari	Myxedema
Myxedema	

Discussion

- Hypothyroidism is a rare cause of ascites wherein the fluid accumulation occurs because of increased capillary permeability.
- Ascitic fluid studies show high in total protein (>2.5 g/dl; mean - 3.9 g/dl) and variable SAAG (mean - 1.5 g/dl; range 0.8–2.3 g/dl). WBC counts in ascitic fluid can be low or high, consisting predominantly of lymphocytes
- Table 1 mentions common causes of ascites classified based on SAAG.
- Myxedema ascites responds well to thyroid replacement therapy and is completely reversible, without any role for diuretics.

References

- Subramanian V, Yaturu S. Symptomatic ascites in a patient with hypothyroidism of short duration. Am J Med Sci. 2007 Jan;333(1):48–52.
- Phillips CA, Sinha U, Chattopadhyay P, Mukhopadhyay P, Haldar S. Isolated ascites in hypothyroidism: medical and ethical issues. J Indian Med Assoc. 2010 Aug;108(8):523–4.