Gallbladder Adenocarcinoma Ascites Masquerading As Intrahepatic Portal Hypertension

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Introduction

- Gallbladder cancer has two patterns of growth:

  infiltrative growth → poorly-defined area of thickening and induration, deep ulcerations that lead to fistula formation with adjacent structures, such as the liver

  exophytic growth → displays pathognomonic cauliflower appearance invading the lumen and gallbladder wall

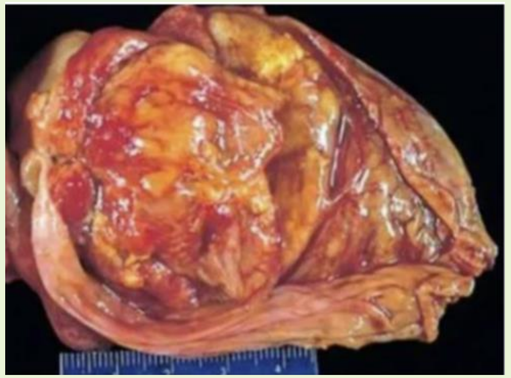

Figure 1. Opened gallbladder contains a large, exophytic tumor that virtually fills the lumen

- Risk factors include, chronic inflammation, usually secondary to gallstones or infection

Case Description

- 57 y/o M PMH of gallbladder adenocarcinoma s/p laparoscopic cholecystectomy and section 4b and 5 hepatectomy, and cirrhosis most likely secondary to Hepatitis C with ascites of unknown origin complicated by recurrent SBP refractory to antibiotic therapy
- Presented for abdominal pain secondary to worsening abdominal distension

Case Description Continued

Vitals: 98.4F, HR 82, RR 20, BP 124/94, saturating 100% on room air

Pertinent Physical Examination: pertinent for distended abdomen with tenderness, with a positive fluid wave and shifting dullness

Labs: body fluid studies from paracentesis yielded SAAG <1.1, total protein 3.8, high hepatic venous pressure (HPVG), (portal hepatic gradient of 10mmHg), cytology negative for malignant cells, good synthetic liver function

Imaging:

CTAP on admission vs 4 days later, remarkable for large volume abdominopelvic ascites

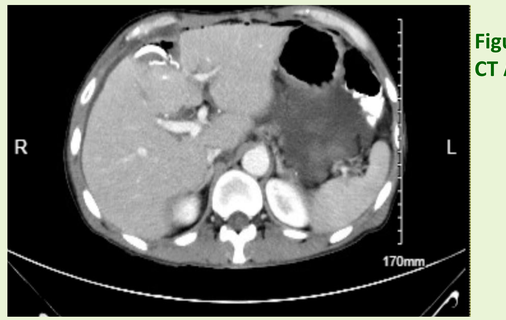

Figure 2.
CT Abdomen & Pelvis

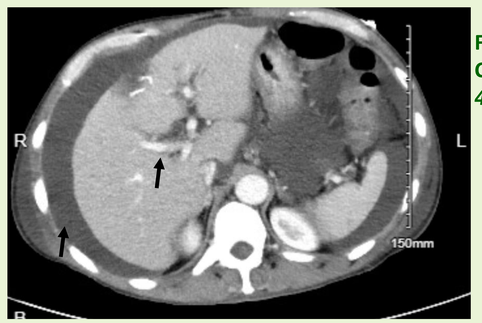

Figure 3.
CT Abdomen & Pelvis
4 days later

Discussion

Differential Diagnosis?

- Portal hypertension contributing to ascites vs tuberculosis vs bile leak vs GB metastasis to liver on top of liver cirrhosis with good synthetic hepatic function at baseline

A Deeper Dive

- High HPVG pointed towards portal hypertension
- SAAG <1.1 pointed in direction of malignant ascites
- After comprehensive workup excluding tuberculosis, the ascites accumulation was most likely malignant in etiology despite relatively benign imaging findings and cytology

Final Thoughts

- We hope that this case report highlights that although in the setting of poorly differentiated gallbladder adenocarcinoma with local metastasis and negative margin resections, malignant ascites can occur
- We strongly believe the patient's recurrent ascites of unknown origin was most likely a case of recurrent malignancy in ascitic fluid, masquerading as intrahepatic portal hypertension
- This must not be mistaken for portal hypertension given the conflicting SAAG ratio and HPVG
- Denver Shunt was placed by IR and patient was discharged home

References

- Cholecystitis & Carcinoma of gallbladder. Share and Discover Knowledge on SlideShare. https://www.slideshare.net/baiti03/cholecystitis-carcinoma-of-gallbladder. Published May 30, 2015. Accessed September 12, 2022.
- Dwivedi AND, Jain S, Dixit R. Gall bladder carcinoma: Aggressive malignancy with Protean Loco-Regional and distant spread. World journal of clinical cases. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4360495/. Published March 16, 2015. Accessed September 16, 2022.
- Fukumura Y, Rong L, Maimaitiaili Y, et al. Precursor lesions of gallbladder carcinoma: Disease concept, pathology, and Genetics. MDPI. https://www.mdpi.com/2075-4418/12/2/341/htm. Published January 28, 2022. Accessed September 12, 2022.