CAROLINAS MEDICAL CENTER

Atrium Health

A Case of Abdominal Cocooning From Appendiceal Carcinomatosis

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Introduction

- Abdominal cocooning is a rare radiologic finding in which thickened peritoneal membrane surrounds the intestines causing bowel to become trapped and adhered to each other
- Also known as encapsulating peritoneal sclerosis
- Associated with chronic inflammation or infections (i.e. tuberculosis (TB), sarcoidosis, peritoneal dialysis, VP shunts, carcinomatosis)
- Typically, patients present with intractable nausea, vomiting, mild abdominal distension, abdominal pain

Case Discussion

Presentation

- 41 yo male with history of remote polysubstance use (IV and alcohol) and incarceration
- Experiencing recurrent ascites, intractable nonbloody, nonbilious emesis, and 30-40lb weight loss over the last 5 months
- Presented to another hospital 2 months prior with similar symptoms.

Physical Exam

- Initial vitals: **T**: 97.6, **HR**: 104, **RR**: 17, **BP**:111/73, **SpO2**: 97% on RA
- Abdomen: Taut, distended, diffusely tender to palpation, umbilical hernia, +bowel sounds

Labs

- Prior admission: HIV & hepatitis panel neg. Ascitic fluid with 774 nucleated cells, 3 segs, 89 lymphocytes. SAAG 1.1. Fluid cx no organisms
- This admission: Ascitic fluid with 795 nucleated cells, 1 segs, 56 lymphocytes. SAAG 1.2. Fluid cx no organism

Imaging

- RUQ ultrasound with doppler: ascites, normal liver appearance, patent vasculature without thromboses
- CT abdomen and pelvis:

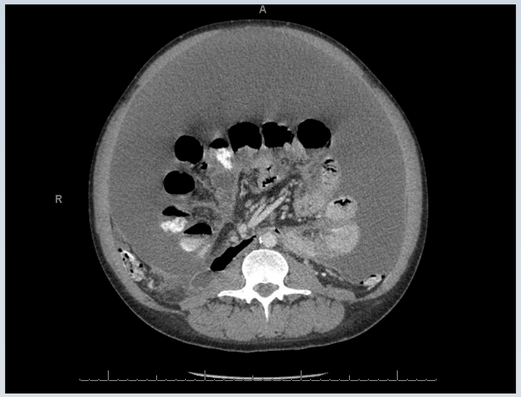

Figure 1: Initial CTAP showing peritoneal thickening consistent with abdominal cocooning with large-volume ascites

Timeline

Day 0: First admission. Treated for cirrhotic ascites and SBP — November 2021

Day 9: Discharged with diuretics for new EtOH cirrhosis diagnosis — November 2021

Day 51: Admission #2 due to recurrent ascites, intractable nausea/vomiting — January 2022

Days 53-56: Peritoneal biopsy denied; colonoscopy unsuccessful

Days 59-61: Biopsy performed; prelim with GC adenocarcinoma

Day 70: Discharged with new diagnosis of appendiceal cancer — January 2022

Case Continued

Initial diagnosis and treatment from prior admission

- Decompensated alcoholic cirrhosis with SBP
- Treated with 7d of ceftriaxone. Discharged on Lasix, spironolactone

Work up this hospitalization

- Tumor markers (CEA, CA 19-9, AFP) and PPD, AFB cultures negative
- EGD: retained fluid in stomach, duodenal flattening
- Colonoscopy: unable to traverse sigmoid colon due to external compression from cementing of peritoneum
- Peritoneal biopsy: Goblet cell adenocarcinoma

Final diagnosis

- Goblet cell adenocarcinoma, presumed appendiceal primary. Metastatic to liver, lungs, and peritoneum

Management

- Not candidate for surgical resection or chemotherapy
- Discharged with pleurx catheter. Was tolerating some PO intake

Discussion

- It is important to know lab and radiologic findings of cirrhotic vs noncirrhotic ascites
- Abdominal cocooning is a specific finding that can help narrow differentials
- The ascitic WBC count and segmental cells and radiologic findings likely indicated TB vs. carcinomatosis and could have led to a quicker diagnosis