

Mesenteric Mesothelial Cyst a Relatively Rare Complication of Peritoneal Dialysis and Intra-Abdominal Surgical Sequel, Case Presentation

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Introduction: Mesenteric mesothelial cysts are relatively rare intra-abdominal lesions that are often asymptomatic and can be multiple and variable in sizes even in the same individual. They are often identified incidentally on radiological studies for intra-abdominal symptoms. Some can be infected and show various inflammatory changes. We present a case of a patient with multiple cysts in which simultaneous sampling of different lesions yielded a sterile result and heavy growth of MRSA pointing to need for multiple sampling.

Case Presentation: A 33-year-old African American male with past medical history of ESRD post renal transplant currently on hemodialysis. Presented with shortness of breath, cough, mild abdominal discomfort. He reported missing last two hemodialysis session, vitals on presentation were only remarkable for hypertension (SBP156) and pulse of 102, on physical exam a positive JVD and HJR was noted with normal first and second heart sounds, S4 gallop noted. Abdomen was distended and a palpable mass in the epigastrium. Lab work was remarkable for Hgb 7.1, normal WBC, elevated procalcitonin, Cr of 10.88 and BUN of 50. Abdominal ultrasound showed 4 complex cystic lesions with loculation and septation of varying degrees, two in midline (epigastric) with one measuring 10.5 X 8.6X 9.2 and another 2 in the left flank with largest measuring 15.4X 5.4 x 5.0. Bilateral atrophic native kidneys and transplanted kidney were noted. Aspiration of the midline epigastric lesion yielded 40cc of blood-tinged material with 257962 RBC, 318 nucleated cells, 20% lymphocytes, 28% neutrophils and mesothelial cells and core biopsy was unsuccessful while left upper quadrant cyst yielded 300cc of amber fluid with >25 WBC, many gram positive and heavy growth of MRSA. Intravenous Vancomycin was given with significant improvement of the culprit lesions on repeat CT abdomen. Abdominal ultrasound Abdominal CT.

Discussion: Mesenteric mesothelial cysts can be located anywhere in the abdomen. They may result from trauma, lymphatic malformation or infection. Rare complications may include infection, obstruction, rupture or torsion. Presenting symptoms include abdominal pain, heaviness and other nonspecific symptoms. The cysts can be single, multiple, simple, loculated or septated and complex in character with varying sizes and can contain serous, bloody and chylous and infected materials. The exact etiology has never been fully elucidated but lymphatic drainage failure and inflammatory processes have been postulated. Imaging modalities include ultrasonography, computed tomographic studies and magnetic resonance imaging. Diagnostic aspiration studies help in tailoring treatment and while surgery is felt to be the gold standard for treatment, care must be exercised to avoid other organ perforation that may occur with adherent tissues. In this case, we believe that the cysts were complications of previous peritoneal dialysis treatments and peritonitis and recommend synchronous sampling of multiple cysts since benign and infected cysts can coexist.