Primary peritoneal mesothelioma is a rare subtype of mesothelioma accounting for 30% of new mesothelioma diagnosis. Although asbestos exposure is a risk factor for mesothelioma, only 1/3 of patients with diffuse malignant peritoneal mesothelioma have a known exposure. The prior life expectancy of patients with this malignancy was 12-14 months, however with newer treatments the 5-year survival can be as high as 29-63%.

**Brief Case Overview**

- 46 year old man with a history of atypical Crohn’s complicated by recurrent abdominal abscesses, hypertension and paroxysmal atrial fibrillation.
- Two years prior to admission the patient was admitted for abdominal pain and was found to have terminal ileum thickening on CT abdomen/pelvis which was concerning for Crohn’s. The patient then underwent a colonoscopy which was negative, MRI enterography with terminal ileum thickening and was taken for exploratory laparotomy for resection of the terminal ileum. During this procedure the patient was found to have an abdominal mass which was also resected.
- The pathology for the mass and the ilium showed fat necrosis and reactive fibrosis without signs of neoplasm or Crohn’s.
- Over the past 2 years the patient has had 6 emergency department visits for unexplained severe abdominal pain.
- Patient was transferred from an outside hospital for 5 days of severe abdominal pain, intermittently associated with eating and localized to the right lower quadrant found to have new masses on CT abdomen/pelvis concerning for abscess formation, the largest of which measured 9cm x 5cm. He did have night sweats and weight loss however no fever, chills, diarrhea, constipation or jaundice.
- On physical exam the patient had tenderness to palpation in the middle and lower right quadrant, however no rebound, masses or peritoneal signs.
- The largest mass was drained and the fluid was negative for bacteria, AFB and fungus.
- Following drain placement the patient was discharged home, however returned 2 weeks later and was again admitted for severe abdominal pain. At this time he was found to have an organizing large fluid collection in the left pelvis and worsening omental nodular infiltration and septated abscess.
- Biopsies of the omentum were obtained and showed extensive mesothelial proliferation with atypical cells; thus the diagnosis of malignant mesothelioma was made.
- The patient has since undergone pre-operative chemotherapy and cytoreductive resection.
- Although he does not have known direct asbestos exposure he does work as a millwright which has the potential for asbestos exposure.

**Learning Objectives**

- Recognize malignant peritoneal mesothelioma as a rare cause of intra-abdominal abscesses.
- Recognize the common cognitive errors that must be overcome to diagnose rare diseases.
- Understand the basic pathophysiology and treatment for peritoneal mesothelioma.

**References available on request**