Rectus sheath hematoma presenting as an abdominal mass

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Abstract
Pathology arising from the abdominal wall is frequently overlooked as the cause for an abdominal mass. Although clinical presentation of the rectus muscle hematoma is well documented, the diagnosis remains a challenge. Hematoma within the rectus sheath produces a painful, tender swelling that can mimic an intraperitoneal mass. This is a case report of an elderly male presenting with rectus sheath hematoma after bouts of prolonged cough.

Introduction
Rectus sheath hematoma is a rare clinical condition and often misdiagnosed cause of abdominal mass. It is a well-documented complication of abdominal trauma, surgery and excessive strain on abdominal musculature. This is a case report of rectus sheath hematoma in which the clinical features and ultrasound findings favored intraperitoneal mass. However, CT scan well delineates the mass and pointed towards the diagnosis of rectus sheath hematoma.

Case Presentation
88 years old Chinese male with an underlying cerebrovascular accident since 15 years ago, hypertension and COAD presented to the emergency care with a complaint of abdominal swelling for one month. He reported that the abdominal swelling was associated with discomfort, loss of weight and loss of appetite but denied the change in bowel habits and abdominal trauma. He was on aspirin, clopidogrel, and neulin. Examination revealed a firm swelling over the right lumbar region with mild tenderness and guarding. Bowel sounds were normal. Blood results showed leucocytosis, Hemoglobin of 10.7 and INR 1.1. The patient was provisionally diagnosed to have a colonic tumor and was admitted for colonoscopy. However, during admission, noted patient developed shortness of breath with a drop in oxygen saturation. Auscultation of the lungs revealed generalized crepitations and rhonchi. Chest x-ray showed pneumonic patches with right upper lobe consolidation. Colonoscopy had to be abandoned due to the acute episode of breathlessness, and we proceeded with ultrasound of the abdomen which showed heterogenous mass at the right lumbar region, originating from the bowel. Subsequently contrasted CT scan of the abdomen confirmed the swelling and demonstrated thickened right rectus abdominis muscle with an ill-defined fluid collection (Figure 1). This finding was consistent with rectus sheath hematoma. On further history from family members revealed, the patient had poor control of COAD with a history of prolonged cough for the last two months. Therefore the final diagnosis is rectus sheath hematoma secondary to protracted cough with exacerbation of COAD secondary to pneumonia. The patient was co-managed with the medical team and was started on antibiotics, and regular nebulization. His symptoms were improved over the next few days, abdominal wall swelling reduced and was discharged well. The patient was given follow up under respiratory care unit to optimize his COAD.

Discussion
Rectus sheath hematoma is a known complication of abdominal trauma, surgery and excessive strain on the abdominal musculature. Due to the anatomy of the abdominal wall below the arcuate line, rupture of epigastric vessels or muscle within rectus sheath causes a hematoma mimicking acute abdomen or abdominal mass. Rectus sheath hematoma commonly presents with abdominal pain, swelling, and a decrease in hemoglobin, abdominal wall ecchymosis, nausea,

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Conclusion

Rectus sheath hematoma can frequently mimic other common abdominal emergencies leading to delay in diagnosis. Prompt history taking with careful physical examination and appropriate imaging studies in which CT scan seems to be the most appropriate choice of imaging helps to avoid unnecessary laparotomies and decrease mortality and morbidity.

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