CODEN [USA]: IAJPBB ISSN: 2349-7750

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES

http://doi.org/10.5281/zenodo.2560550

Available online at: http://www.iajps.com ***Research Article***

RECTUS SHEATH HEMATOMA MIMICKING INGUINAL HERNIA

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Abstract:

Introduction: *Rectus sheath hematoma (RSH) is an uncommon condition that results from accumulation of blood within the rectus sheath and causes acute abdominal pain. It accounts for 1.8% of acute abdomen cases. Female gender and old age are known risk factors. It usually presents with abdominal pain and tender swelling.*

Case presentation: We report a case of a 49 years old male, known case of hypertension, status post thoracic aorta dissection repair 7 years prior to presentation, on warfarin, presented with abdominal pain and inguinal swelling for 4 days. Abdominal examination revealed a swelling at the right inguinal area with multiple bruises and positive cough impulse. All labs were within normal except prolonged INR of 2.01 .

US scan showed an incarcerated inguinal hernia, however CT scan showed RSH. Patient was managed conservatively and discharged after 4 days.

Discussion: *RSH is a rare cause of acute abdomen. Most common risk factors are anticoagulant therapy, female gender and trauma. Our patient was a young male, with no history of trauma. RSH usually presents with abdominal pain and swelling at the course of the rectus muscle. US and CT scan are the diagnostic modalities of choice with the latter being more sensitive and specific. Management of RSH depends on the stability of the patient. Our patient was managed conservatively. Surgery is usually reserved for hemodynamically unstable patients with uncontrolled bleeding.*

Conclusion: *Although rectus sheath hematoma is an uncommon cause of acute abdomen, it should be considered in the differential diagnosis in patients using anticoagulants presenting with abdominal pain and swelling. US can be done initially, however CT scan is the gold standard radiological investigation. Conservative management remains the management option of choice for stable patients.*

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Please cite this article in press Tarig Abdelhafiz et al., ***Rectus Sheath Hematoma Mimicking Inguinal Hernia.,*** *Indo Am. J. P. Sci, 2019; 06(02).*

INTRODUCTION:

Rectus sheath hematoma (RSH) is an uncommon clinical entity that results from accumulation of blood within the rectus sheath and causes acute abdomen. It arises as a result of disruption of the branches of the epigastric arteries at the insertion into the rectus abdominis muscle [1, 2]. Rectus sheath hematoma accounts for 1.8% of acute abdomen cases and has a female predominance with 1:2-3 male to female ratio [3]. Most common risk factors are female gender and older age, due less muscle mass[4]. It usually presents with abdominal pain, palpable tender abdominal swelling along the course of the rectus muscle, and in some cases might present with vomiting, fever and chills [5].

CASE PRESENTATION:

We report a case of a 49 years old male, known case of hypertension, status post thoracic aorta dissection repair 7 years prior to presentation, on warfarin, aspirin and bisoprolol. Presented to the ER complaining of lower abdominal pain in the right inguinal area for 4 days duration. The condition started following a bout of coughing. The pain was progressive, continuous, dull aching in nature, exacerbated by cough, not relieved with paracetamol, radiating to the umbilicus. He has history of chronic constipation. No fever, nausea, vomiting, diarrhea, melena, change in stool color, or urinary symptoms. No history of trauma. On physical examination, patient was lying on bed, conscious alert and oriented, not in pain or respiratory distress, not apparently jaundiced or pale. Vitally stable. Abdominal examination revealed a swelling at the right inguinal area, about 3x3 cm in size, rounded, tender, with positive cough impulse. There were two abdominal bruises: in the infra-umbilical and supra pubic regions. No hepatosplenomegaly or ascites.
Initial impression was Incarcerated inguinal hernia.

Laboratory workups were within normal range except for INR (2.01) and PT (24.1).

Ultrasound was reported as incarcerated right inguinal hernia. (figure 1)

In view of the atypical history and clinical findings,

a CT scan was done. This showed the patient to have rectus sheath hematoma. (Figure 2)

He was admitted for conservative management in the form of ice packing and analgesia. His condition improved, and he was discharged in a good condition to follow up in the outpatient department.

DISCUSSION:

RSH is a rare cause of acute abdomen that is usually mixed with other common acute abdominal causes. Risk factors for RSH include anticoagulant therapy, trauma, forceful cough, pregnancy, old age, female gender, and medical conditions such as hypertension, coagulopathy, renal failure and collagen vascular disorders [5].
RSH are usually located in the posterior sheath therefore difficult to palpate [4] , however our patient's hematoma was palpable which probably have led to initial mis-diagnosis as inguinal hernia.

The diagnostic modalities of RSH Include US which has a sensitivity of 80%-90%, and CT scan which is the modality of choice with sensitivity of 98% [3].

Initially, in our case US was highly suggestive of inguinal hernia, however, clinical suspicion necessitated going with CT scan and the diagnosis of RSH was confirmed.

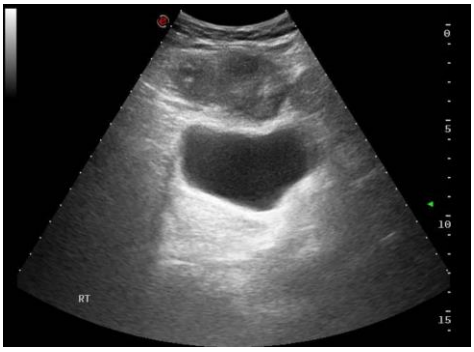

Figure 1

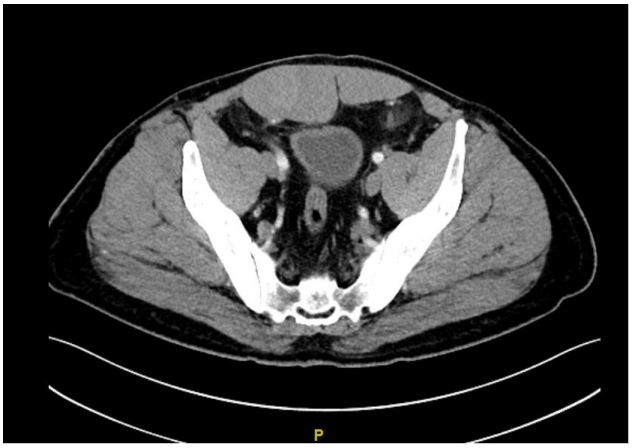

Figure 2

Management of RSH depends on the hemodynamic status of the patient. Hemodynamically stable patients, as our case, can be treated conservatively with analgesia, bed rest, ice packing. Hemodynamically unstable patients are managed by fluid resuscitation, blood transfusion and discontinuation of anticoagulant therapy if clearly indicated. Surgical approach is reserved for hemodynamically unstable patients aiming to control the bleeding by ligation of the bleeding vessels and evacuation of the hematoma [4,6].

CONCLUSION:

Although rectus sheath hematoma is an uncommon cause of acute abdomen, high index of suspicion should be kept in mind in patients receiving anticoagulant therapy with atypical presentations. Ct scan is the gold standard imaging modality. The conservative approach is superior in hemodynamically stable patients.

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