



Rectus sheath hematoma manifesting as hemorrhagic shock

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A 67-year-old man was admitted to the hospital after a fall producing a left flank ecchymosis. His comorbidities included non-alcoholic steatohepatitis-related cirrhosis complicated by coagulopathy [International Normalized Ratio (INR) 1.95, reference range (RR) 0.86–1.11] and thrombocytopenia (95,000 plt/mL, RR 150,000–420,000 plt/mL). On hospital day 3, he developed abdominal pain, hypotension 87/41 mmHg (previously 110–120/60–65 mmHg), acute anemia (hemoglobin of 4.1 g/dL, from a previously stable 9.1–9.7 g/dL, RR 11.5–14.8 g/dL), and renal failure. Computed tomography of the abdomen and pelvis without contrast showed a type III acute left anterior rectus sheath hematoma (Fig. 1) measuring 8.2 × 12.2 × 21.2 cm infiltrating through the pre-vesical space.

Rectus sheath hematoma (RSH) is an uncommon cause of abdominal pain, and rarely presents as hemorrhagic shock. It is usually associated with direct abdominal trauma and anticoagulation. Abdominal surgery, intense rectus muscle

contractions, coagulopathies and vascular disorders have also been documented as potential risk factors [1, 2]. The patient had a documented fall prior to this hospitalization, and concomitant cirrhosis complicated by coagulopathy and thrombocytopenia, which increased his risk of developing a RSH. There are three types of RSH, type I is small and confined within the rectus muscle; type II can dissect along the transversalis fascial plane or cross the midline; and type III is large and often presents with evidence of blood within the pre-vesical space [3]. It is usually a self-limiting condition and can be managed conservatively, although it may require blood transfusions, and arterial embolization or surgical intervention if bleeding persists [2, 4]. The patient was successfully resuscitated requiring 6 U of packed red blood cells, 4 U of fresh frozen plasma and 1 U of platelets. He remained stable, with reassuring follow-up imaging, enabling safe discharge on hospital day 14. This case reminds us that internal bleeding can be located in unusual sites.

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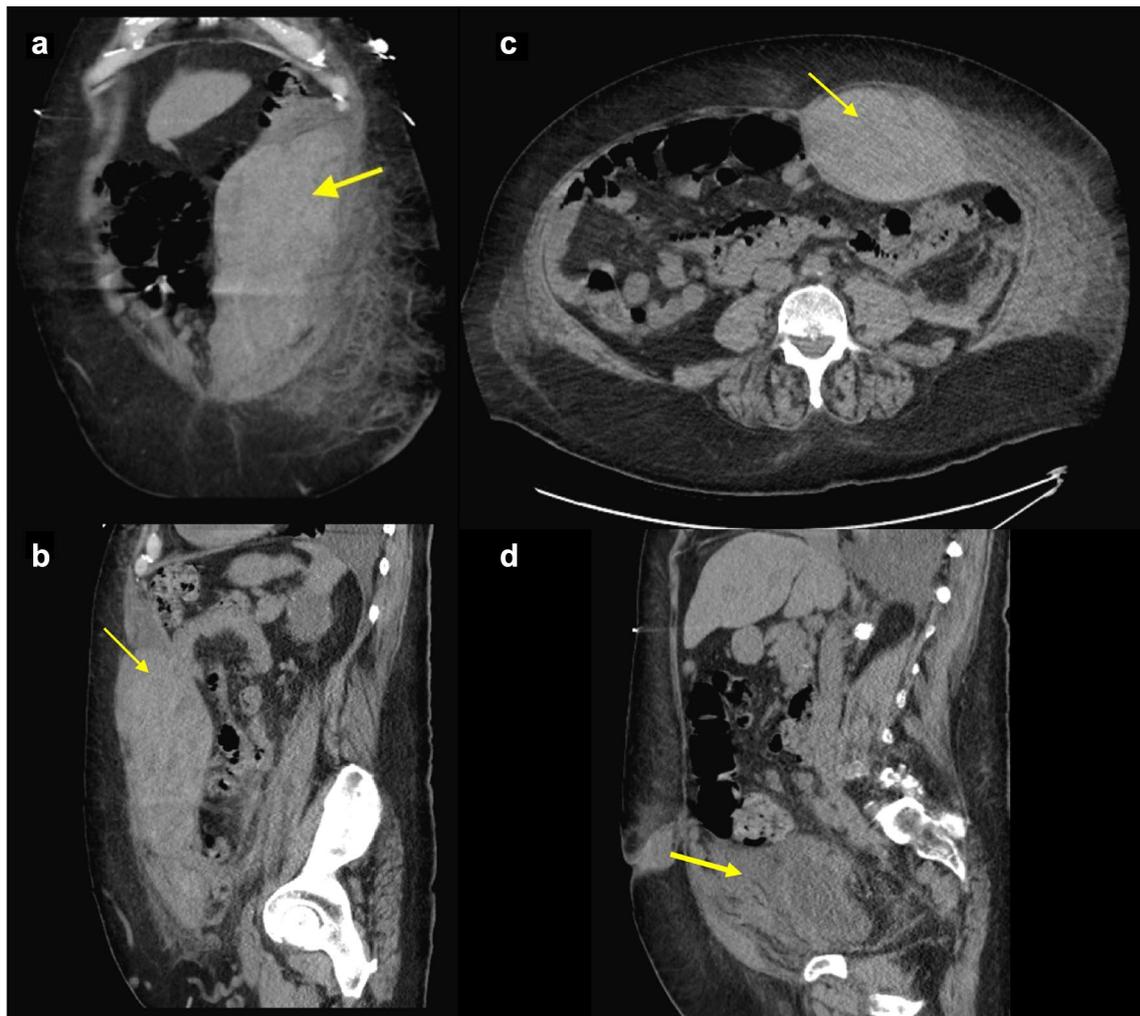


Fig. 1 Computed tomography of the abdomen showing the anterior rectus sheath hematoma (arrow), **a** coronal view, **b** sagittal view, **c** axial view, **d** sagittal view showing the extension of the hematoma within the pre-vesical space

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflicts of interest.

Statement of human and animal rights This case image complies with the ethical standards outlined in the journal. It involved the medical management of a patient as per society guidelines and was in accordance with the ethical standards of the institution. This case was not formal research involving Human Participants and/or Animals.

Informed consent Informed consent was obtained.

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