

Images in...

Spontaneous rectus sheath haematoma caused by warfarin-induced overanticoagulation

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A 45-year-old female, receiving long-term warfarin therapy for the past 9 years after undergoing Bentall's operation and aortic arch replacement for dissective aortic aneurysm and annulo-aortic ectasia, developed an increasingly severe lower abdominal pain and visited the emergency department. She received the last pill of warfarin on the day of her presentation in the emergency room, but she denied any abdominal physical trauma or lifting any heavy objects the night before or on the day of her presentation in the emergency room. She had been receiving several antihypertensives for hypertension and her recent blood pressure was stable. She did not have any chronic coughing or previous history of laparotomy.

On examination, her body mass index was 18.9 kg/m², and her temperature, blood pressure, and pulse were within normal parameters. Abdominal examination revealed severe tenderness and rebound tenderness in the lower abdomen. Before this episode, her international normalised ratio was consistently within therapeutic range (2.0–3.0), but it was elevated at >4.5 on admission. Other blood indices were normal. CT of the abdomen showed a 5 cm-sized hyperdense masses in the lower half of the bilateral inferior rectus, suggesting rectus sheath haematoma (RSH), without evidence of any other intra-abdominal lesions (figure 1). Management was conservative, consisting of bed rest, analgesics and infusion of vitamin K and cessation of warfarin. The patient soon recovered and warfarin therapy was restarted without complication. She was discharged home 9 days post-admission. Various bleeding complications are commonly associated with warfarin such as gastrointestinal bleeding or retroperitoneal haematoma.^{1 2} RSH can also result from warfarin-induced overanticoagulation.^{3 4} Predisposing factors for RSH include anticoagulant use, hypertension, obesity, previous abdominal surgery and coughing.^{3 4} In the current case, the patient had no other concerning factors except for controlled hypertension, and there is probably a true association linking RSH to warfarin (score of 8 according to Naranjo algorithm,⁵ and suggestive reasons for this association are the temporal relationship and pharmacological time plausibility, positive dechallenge, and all other possible causes for RSH being ruled out). RSH is a relatively uncommon disease and can be misdiagnosed as an acute abdomen and lead to unnecessary operations.^{3 4} The perforating branches of the inferior epigastric artery running in the preperitoneal fat may rupture, causing a large haematoma spreading in the looser rectus sheath space. Non-invasive imaging modalities including high resolution CT scan are the key to establish its early diagnosis. An index of high suspicion and early diagnosis is mandatory to make the correct diagnosis and avoid unnecessary exploratory laparotomy.

Competing interests None.**Patient consent** Obtained.**REFERENCES**

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Figure 1 CT scan demonstrated 5 cm sized hyperdense masses in right (A) and left (B) side of the inferior rectus (arrows), suggesting bilateral rectus sheath haematomas.

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