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Rectus sheath haematoma in a patient receiving haemodialysis

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DESCRIPTION
A 65-year-old woman visited the emergency department due to severe right lower quadrant pain of sudden onset after intense coughing due to bronchitis. She had been receiving haemodialysis for glomerulonephritis for 25 years. Physical examination revealed severe and rebound tenderness on the right lower quadrant area. Complete blood count revealed a white cell count of 4700/μl, haemoglobin level 9.0 g/dl, platelets 14.8×104/μl, C reactive protein 0.3 mg/dl, prothrombin time 12 s and partial thromboplastin time 26 s. Ultrasonography and CT of the abdomen were performed to discern the cause of acute abdomen. Possible diagnoses included acute appendicitis and diverticulitis. Rectus sheath haematoma (RSH) was diagnosed by ultrasonography and confirmed by CT (figure 1A, B). The patient recovered uneventfully after bed rest, analgesics and cessation of heparin as an anticoagulant during haemodialysis. The anticoagulant during haemodialysis was changed to naphamostat mesylate; when the bleeding completely stopped after about 1 week heparin was re-started.

RSH is a relatively uncommon disease. It is often misdiagnosed as many other serious intra-abdominal diseases, such as appendicitis, diverticulitis, cholecystitis, incarcerated inguinal hernia, torsion of an ovarian cyst or acute pancreatitis.1–3 The rectus abdominis muscle lies between the aponeuroses of the transverse and oblique muscles. Below the arcuate line, the aponeuroses remain intact anteriorly, but only the weak transversalis fascia and peritoneum separate the muscle mass from the abdominal viscera posteriorly. Because of these anatomical features, the perforating branches of the inferior epigastric artery running in the preperitoneal fat may rupture causing a large haematoma widely spreading in this loose space. Predisposing factors for RSH include hypertension, obesity, previous abdominal surgery, coughing and anticoagulant use. Although a hyperdense mass posterior to the rectus abdominis muscle is considered characteristic of acute RSH on CT, chronic RSH may be isodense or hypodense relative to the surrounding muscle.2 Taking a careful history and ancillary tests, including ultrasonography and CT will help in making the correct diagnosis and avert unnecessary exploratory laparotomy.
Competing interests None.

Patient consent Obtained.

REFERENCES


Figure 1   (A) A mixed echogenic mass was seen within the rectus sheath (white arrow head). (B) CT shows a round mass in the anterior abdominal wall consistent with rectus sheath haematoma (dotted line). Lysis and fragmentation of clotted blood were seen inside old haematoma (inset).

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