

CONTINUING MEDICAL EDUCATION ΣΥΝΕΧΙΖΟΜΕΝΗ ΙΑΤΡΙΚΗ ΕΚΠΑΙΔΕΥΣΗ

Internal Medicine Quiz – Case 11

A 91-year-old retired agriculturalist was admitted to the hospital because of an episode of unconsciousness that was followed by transient dysarthria. He had a history of mitral stenosis and atrial fibrillation and was on sub-therapeutic doses of a coumarin anticoagulant (INR: 1.28, acenocoumarol). As the working diagnosis was that of a transient ischemic attack the dose of acenocoumarol was increased aiming at elevating the INR to a level of 2.0–2.5 and low-molecular heparin was started for a few days. Forty-eight hours following admission he described an abdominal pain of sudden onset while attempting to sit-up from the recumbent position. The pain was worsened by movement and extended from the epigastrium to the left iliac fossa. On examination, he had signs of an acute abdomen –muscle resistance, tenderness on pressure and following withdrawal of the examiner’s hand– most prominent at the left lower quadrant. Preparations were made for surgery while waiting for the imaging studies. An increase of the abdominal pain with every jolt of the bed during transportation was interpreted as further evidence of an acute abdominal emergency. Ultrasonography was not diagnostic but CT of the abdomen revealed the presence of a large mass (fig. 1). The INR was 1.86 on the day that abdominal pain occurred while hemoglobin level decreased from 13.5 g/dL on admission to 11 g/dL following the bleeding. Three days later a marked ecchymosis appeared extending from the thoracic to the abdominal wall. Acenocoumarol was discontinued and the patient was managed conservatively.

Comment

Spontaneous bleeding within sheath of the rectus abdominis muscle is an uncommon clinical entity that presents with abdominal pain of sudden onset and may mimic an acute abdominal emergency. It usually occurs in elderly patients receiving anticoagulants and is attributed to a muscle tear or the rupture of an epigastric vessel. It may prove a diagnostic challenge when physicians are unaware of this condition as it is often misdiagnosed as appendicitis, cholecystitis, pancreatitis, torsion of an ovarian cyst, perforated ulcer, intestinal obstruction, ectopic pregnancy, abruptio placenta or tumor. Although it may occur in the upper abdomen, it usually occurs below the umbilicus, where the rectus abdominis muscle lacks its ventral aponeurotic sheath and therefore the epigastric vessels are not efficiently protected by shearing forces.

Rectus sheath hematoma is associated with old age, anticoagulant therapy, trauma, hematological disorders, previous abdominal

ARCHIVES OF HELLENIC MEDICINE 2008, 25(6):847
ΑΡΧΕΙΑ ΕΛΛΗΝΙΚΗΣ ΙΑΤΡΙΚΗΣ 2008, 25(6):847

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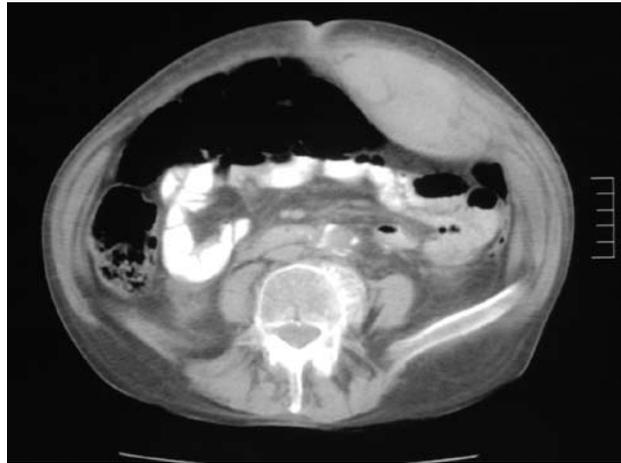


Figure 1

surgery, subcutaneous abdominal injections of heparin or insulin, obesity, hypertension and increased intra-abdominal pressure from coughing, sneezing, strenuous exercise and pregnancy. The most common predisposing conditions are old age, anticoagulant therapy and coughing.

Ultrasonography usually detects rectus sheath hematomas but CT seems to be the imaging method of choice. Conservative management is preferred in the majority of cases with bed rest, discontinuation of anticoagulant therapy and transfusion of blood or blood products when necessary. Surgical evacuation and hemostasis is indicated for large hematomas with hemodynamic instability, abscess formation, or when the diagnosis is in doubt.

Awareness of this clinical entity is the key to the diagnosis. A rectus sheath hematoma should be suspected in elderly patients on anticoagulant therapy who develop abdominal pain of sudden onset with or without a palpable tender abdominal mass. Ultrasonography or CT will establish the diagnosis and prevent any further unnecessary surgical intervention.

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Diagnosis: Rectus sheath hematoma mimicking an acute abdomen