

Rectus sheath hematoma in elderly, medical or surgical treatment?

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Citation

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Abstract

Anticoagulation induced bleeding complications to occur more frequently in the elderly. Two patients with Rectus sheath hematoma as a result of bleeding complication of warfarine therapy are reported.

INTRODUCTION

Rectus sheath hematoma (RSH) is usually a self-limiting condition but can present as a life-threatening emergency. It results from hemorrhage into the rectus muscle due to rupture of the superior or inferior epigastric arteries, their branches or a tear of the rectus abdominis muscle (1). Herein, two patients with RSH are reported.

PATIENT 1

An 84 years-old man with medical history of diabetes mellitus treated with insulin and receiving long-term warfarin therapy by atrial fibrillation. Was admitted with 1-day history of hemoptysis and acute right-side abdominal pain after a bout of coughing. Abdominal examination revealed a tender mass of 8-cm, nonpulsatile in the right lower abdomen. Carnett's test was positive. Complete blood count showed a normal white cell and platelet count, hemoglobin level 14 gr/dL; international normalized ratio (INR) 9. Abdominal ultrasound revealed an echogenic mass of 8-cm x 6-cm in the right lower abdomen. Anticoagulation was stopped and two units of fresh frozen plasma were transfused. He was discharged 10 days after admittance with enoxaparin 60 mg daily. Five months later the hematoma had disappeared and warfarin therapy was restarted. Follow-up during 2 years revealed no further problems.

PATIENT 2

An 85-year-old woman receiving long-term warfarin therapy by atrial fibrillation,

Was admitted with an acute left-side abdominal pain after a bout of severe coughing. Abdominal examination revealed a tender and nonpulsatile mass, in left lower abdomen.

Carnett's test was positive. Complete blood count showed a normal white cell and platelet count, hemoglobin level 7.5 gr/dL; INR 4.81. Abdominal ultrasound revealed an echogenic mass of 10-cm x 8-cm in left lower abdomen. Anticoagulation was stopped and two units of fresh frozen plasma and packed red blood cells were transfused. She was discharged 15 days after admittance with enoxaparin 60 mg daily.

Six months later the hematoma had disappeared and warfarin therapy was restarted. Follow-up during 1 year revealed no further complications.

DISCUSSION

RSH is an uncommon cause of abdominal pain often misdiagnosed, nearly always presents acutely with abdominal pain sudden onset and can mimic various intra-abdominal diseases: appendicitis, perforated ulcer, ovarian cyst, torsion, intestinal obstruction or tumors (2-3). Age is a predisposing factor for RSH. The protection provided by the anatomy of the rectus sheath may be compromised by decreased muscle and age-related changes from arteriosclerosis or hypertension may render vessels more susceptible to injury(4). Many causes of RSH have been described in the literature: anticoagulation therapy(AT), trauma, hematological disorders, coughing and spontaneously without discernible cause. However, AT is the main risk factor, and the most important precipitating factor is coughing(2). Patients with RSH tend to be older, because older patients are more likely to be receiving AT (3-7). The most constant features are abdominal pain and a mass on palpation. Carnett's test, help to differentiate pain originating from abdominal wall from pain arising intra-

abdominal disorders. The site of maximal abdominal tenderness is palpated while the patient is lying supine. If tenderness increases when patient sits halfway up, the test is said to be positive. In RSH Carnett's test is positive, because the contraction of the rectus muscle compresses the hematoma and worsens the tenderness (1). The presentation of RSH is more likely to be atypical in elderly persons. Abdominal pain may not be present. RSH has been reported in elderly patients with chief symptoms of dyspnea, confusion, and urinary retention. Abdominal ultrasound is one of the first-line investigations, with a sensitivity of 80-90%. However, the gold standard for diagnosis of RSH is computed tomography with 100% sensitivity and specificity (5). Management is essentially conservative with suspension of AT, fresh frozen plasma and blood transfusion if needed. Surgery is indicated only for cases that do not respond to supportive management, progressive and large hematoma or uncontrollable hemodynamic patients (2-9). RSH is rarely fatal. The mortality rate for patients with RSH who are undergoing anticoagulation therapy is reported to be 25%. The high mortality is related to the larger hematomas as well as the increased age and significant comorbidities of these patients. This mortality rate was reported prior to the widespread use of ultrasonography and CT scanning to aid in the early diagnosis of RSH. Early diagnosis likely reduces the mortality rate, but no studies to date are available to demonstrate this. The morbidity of RSH is primarily the

result of incorrect diagnosis leading to unnecessary exploratory laparotomy, delay in cessation of anticoagulant therapy, or delay in fluid resuscitation and blood transfusion (3,4).

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