Spontaneously resolved gigantic retroperitoneal hematoma following oophorectomy: Conservative management in a cardiac patient on anticoagulant therapy

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Abstract

Introduction: Retroperitoneal haemorrhage is a clinical entity that can present as a rare life-threatening event, causing significant morbidity and representing a diagnostic challenge. Case presentation: We report the case of a patient with double mitral and aortic valve replacement on oral anticoagulant who presented with left sided retroperitoneal haematoma after left oophorectomy for ruptured huge ovarian cyst which was treated conservatively. Conclusion: This is a rare case of hematoma that reached that size and managed conservatively. Delay in diagnosis is potentially fatal and high clinical suspicion remains crucial. Finally, it is a matter of controversy whether retroperitoneal hematomas should be surgically evacuated or conservatively treated and the final decision should be made after taking into consideration patient's general condition and the possibility of permanent femoral or sciatic neuropathy due to compression syndrome.

Key words: retroperitoneal hematoma, oophorectomy, anticoagulant therapy

Introduction

Retroperitoneal haemorrhage (RPH) is an infrequent but potentially fatal complication and represents a diagnostic challenge. The early history of RPH has been reviewed elsewhere [8]. The first case of RPH was reported in 1950 following lumbar anaesthesia. Vascular complications continue to contribute to the morbidity and mortality of these procedures [1-6]. This case is reported because it is rare that a hematoma reached that size and managed conservatively.

Case report

A 40-year-old woman, para 4, with two previous caesarean sections, was presented to our department, complaining of lower abdominal pain, distension, dizziness, headache and pallor since 4 hrs. She was cardiac with aortic and mitral valve replacement on warfarin 5 md/d.

On examination, the patient was drowsy, in agony and in a nearly shock state with pale, cold, clammy extremities, a thready pulse of 120 beats/minute and arterial blood pressure of 70/40 mm Hg.

Abdominal examination revealed distension and tenderness all over. On vaginal examination, mild vaginal bleeding was noted. A speculum examination did not reveal any cervical or vaginal pathology. The cervical os was tightly closed. The patient was resuscitated with intravenous fluids plasma and blood transfusion.

Pelvic ultrasound showed an normally sized antever-tely flexed uterus, with massive abdominal collection which revealed blood on abdominal tapping. Her haemoglobin level (Hb) was 3 g/dl, platelets count of 80 000/mm³, international normalized ratio (INR) was 10.

The patient underwent a low transverse abdominal incision after stabilization of the general condition. Drainage of clotted blood was done. Left oophorectomy was done for ruptured large left ovarian cyst that was sent for histopathology. Histopathology later revealed simple ovarian cyst. There were no operative complications. No unusual bleeding was observed. Intraperitoneal drain was inserted. She had received 4 units of blood and 2 units of fresh frozen plasma intraoperative.

Postoperative, low molecular weight heparin (LMWH) (enoxaparin 40 mg/d) was stared 12 hrs after the operation with warfarin 3 mg/d.

On the fourth post-operation day, she started complaining of tachycardia, tachypnoea, abdominal pain and distension while still receiving her transfusions. The drain was showing about 600 ml/day. She was investigated for the aetiology of the abdominal pain. Her general condition was average and she was conscious. Her temperature was 37.8°C, blood pressure was 100/70 mm Hg and pulse was 88/minute. Her abdomen was distended and was tender to palpation. She had no problem passing flatus or urine. Her complete blood count results

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were: haemoglobin 6 g/dl, haematocrit 25%, platelets 80 000/mm$^3$, and white blood cells 17 000/μl prothrombin time 30%. Chest X-ray was normal.

An abdominal ultrasound showed a left sided 10×20 cm hypo-echoic haematoma extending from the pelvis to just below the left kidney with no free abdominal collection.

Computerised tomography (CT) scan of the abdomen reported a large hypodense non-enhancing collection about 20×12×10 cm in the left side extending from the left iliac fossa, to the upper pole of the left kidney. The main bulk of the collection displaced the left kidney antero-medially; otherwise both kidneys and ureters were normal. It merged imperceptibly with the psoas muscle indicating a hematoma originating in the retroperitoneal (Fig. 1).

No further action was taken regarding the retroperitoneal hematoma. She was managed conservatively with bed rest, analgesia and antibiotics. Blood and plasma transfusion was continued. Anticoagulant therapy was stopped. One week after the haematoma was noticed, her abdominal pain started to subside. A repeat ultrasound scan failed to identify increase in size. The patient discharged after 2 weeks later on oral anticoagulant after reintroduction for her cardiac condition. Follow-up CT scans showed the gradual resorption of the retroperitoneal hematoma over a period of nine months. She has been on follow-up with no evidence of complication.

Discussion

Haemorrhage may occur, but this appears to be one of the few reports in the literature of giant retroperitoneal hematoma following oophorectomy. Most commonly reported causes of spontaneous retroperitoneal haemorrhage include rupture of abdominal aortic aneurysm, adrenal bleeding, haemorrhagic pancreatitis and kidney-related haemorrhage occurring secondarily to spontaneous rupture of renal cell carcinoma, angiomyolipoma or renal cysts as a result of blood diseases or anticoagulation therapy [1].

Patients with retroperitoneal haemorrhage usually present with abdominal pain, nausea and vomiting, ileus, a tender mass in the abdomen and flank, hypotension and a marked decrease in haematocrit [1]. Abdominopelvic CT scan is the principal method of diagnosis. It helps in establishing the site, size and likely underlying cause [2]. According to Henao and Aldrete [3], retroperitoneal hematoma patients who are in shock or who have peritoneal irritation or positive peritoneal lavage results, should undergo operation, while others do not require urgent operation but should be placed under observation.

![Fig. 1. Abdominopelvic CT revealed left sided retroperitoneal hematoma](image-url)
According to Kent et al. [4], only 16% of patients require surgery indications for surgical intervention include: persistent hypotension, decreasing haematocrit despite transfusion, and femoral neuropathy due to nerve compression. They suggest that laparotomy may sometimes be harmful due to destroying the tamponade effect of the abdominal wall [5-10]. Delay in diagnosis is potentially fatal and high clinical suspicion remains crucial. Finally, it is a matter of controversy whether retroperitoneal hematomas should be surgically evacuated or conservatively treated; the final decision should be made after taking into consideration patient's general condition and the possibility of permanent femoral or sciatic neuropathy due to compression syndrome.

Conclusion

The rarity of this complication means that it remains a challenge for surgeons. We strongly suggest avoiding emergency surgery in uncontrolled patients until stabilisation of its condition. After surgery anticoagulation should not be started until no suspicion of active bleeding.

Some of the most important factors for the diagnosis are acute onset of pain, a dramatic change in the patient's clinical status and high clinical suspicion. CT and MRI remain the most powerful diagnostic tools. The complex challenge for the surgeon is the choice of clinical pathway in the management of this rare entity and this choices should only be made after taking two key points into consideration: (i) the patient's general condition; (ii) in the presence of permanent femoral or sciatic neuropathy due to a compression syndrome, hemodynamically unstable patients should be managed with an emergency laparotomy [5-8].

Ethical approval

Written informed consent was obtained from the patient for publication of this case report and accompanying images.

Acknowledgments

I acknowledge the cooperation of El-shatby Maternity University Hospital residents who participated in appointing the patient and following up. We also appreciate the commitment and compliance of the patient who reported the required data and attended for the regular follow up.

References


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