

Spontaneously Resolved Post-Caesarean Giant Retroperitoneal Hematoma: A Case Report

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Citation

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Abstract

A case of an infected retroperitoneal hematoma associated with uterine dehiscence and multiple abdominal abscess formation in a morbidly obese diabetic patient post-caesarean section is presented. After dehiscence repair and antibiotic treatment, the hematoma spontaneously resolved over three months.

CASE REPORT

A 34-year-old morbidly obese (weight 120 kg, height 154 cm, body mass index (BMI) 50.6 kg/m²; BMI > 40 kg/m² defined as obese) female patient underwent a caesarean section (CS), (low transverse abdominal incision (Pfannenstiel) and a transverse lower uterine segment incision) at our hospital because of diabetes, hypertension and prior caesarean operation. It was her fifth pregnancy (G5 P3 A3 A2 C2). As with all her previous pregnancies, the pregnancy had been induced with clomiphene citrate because of chronic anovulation. There were no operative complications. No lacerations or unusual bleeding were observed. She was discharged on the fourth day post-operation.

On the twentieth day post-operation, she presented to our emergency department complaining of abdominal pain and was hospitalized to investigate the etiology of the abdominal pain. Her general condition was average and she was conscious. Her temperature was 37.8 ° C, blood pressure was 110/70 mmHg 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 were: hemoglobin 8.2 g/dl (normal range (NR) 12-18), hematocrit 26 % (NR 35-53), platelets 832/μL (NR 142-424), and white blood cells 17000/μl (NR 4300-10300).

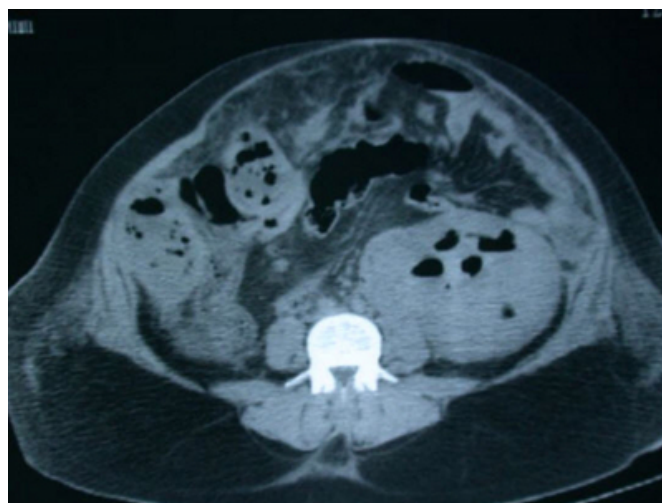
Her biochemistry results were: total protein 5.7 g/dl (NR 6.4-8.3), albumin 3.1 mg/dl (NR 3.5-5.0), lactate dehydrogenase 450 U/L (NR 100-190), prothrombin time 13.9 s (NR 10-15 s), activated partial thromboplastin time

32.2 s (NR 26-35 s), fibrinogen 521 mg/dl (NR 245-400), HbA1C 6.2% (fasting blood sugar levels had been 140-160 mg/dl during the period between the caesarean and presentation to the emergency department).

Chest X-ray was normal. An abdominal ultrasound showed abdominal ascites and a 98x106 mm hypoechoic mass under the region of the spleen. Abdominal computed tomography (CT) revealed a 17x12x10 cm hyperdense mass under the splenic area, indicating a hematoma originating in the retroperitoneal region and extending into the pelvic area, and multiple abdominal abscesses containing air spaces (Fig. 1).

Figure 1

Figure 1: Abdominal CT revealed multiple abdominal abscesses and retroperitoneal hematoma (containing air spaces). Note the increased mesenteric vascularization and omental stranding with increased density.



Because of her clinical and imaging findings, an exploratory

laparotomy was performed. The entire Kerr incision was found to have dehisced and a number of abscesses were present under the liver and spleen and between the intestines. These abscesses were drained and the dehiscent area sutured. No further action was taken regarding the retroperitoneal hematoma. Blood and abscess samples were taken for culture but were not helpful. Postoperatively, she was treated with metronidazole and ceftriaxone and discharged on the twelfth day.

Follow-up CT scans showed the gradual resorption of the retroperitoneal hematoma over a period of three months. She has been on follow-up over the last six months with no evidence of complication.

DISCUSSION

The postpartum care of the patient after CS requires not only attention to normal puerperal changes but also special attention to general issues of care after any major abdominal procedure.

The most common cause of febrile morbidity in the postpartum period is infection of the genital tract, most commonly endometritis (₁), the overall incidence of which currently approaches 30%. In these infections, there may be a significant contribution from anaerobic organisms, underscoring the need for an antibiotic regimen that treats both aerobic and anaerobic bacteria.

Hemorrhage may occur but this appears to be the first report in the literature of giant retroperitoneal hematoma following CS. At laparotomy, the source of the hematoma was not found but the most likely cause appeared to be the dehiscence of the incision produced by infection, perhaps exacerbated by the multiple abscesses formed.

A 'spontaneous' hemorrhage cannot be entirely ruled out. Most commonly reported causes of spontaneous retroperitoneal hemorrhage include rupture of abdominal aortic aneurysm, adrenal bleeding, hemorrhagic pancreatitis and kidney-related hemorrhage occurring secondarily to spontaneous rupture of renal cell carcinoma, angiomyolipoma or renal cysts or as a result of blood dyscrasia or anticoagulation therapy. Our patient had received a low-molecular-weight heparin (nadroparin calcium 0.6 mL, 5,700 IU anti-Xa [Fraxiparine®, Sanofi-Dogu, Istanbul, Turkey]) SC every 12 h for 7 days after the CS but her coagulation values were normal at the time of her readmission. There was no evidence of any of the other conditions associated with retroperitoneal hematoma.

Patients with retroperitoneal hemorrhage usually present with abdominal pain, nausea and vomiting, ileus, a tender mass in the abdomen and flank, hypotension and a marked decrease in hematocrit (₂). Abdominopelvic CT scan is the principal method of diagnosis. It helps in establishing the site, size and likely underlying cause, and should be performed after an aneurysm has been excluded (₃).

According to Henao and Aldrete (₄), 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.

According to Kent et al (₅), only 16% of patients require surgery, indications for surgical intervention including persistent hypotension, decreasing hematocrit 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.

Despite the presence of a number of possible risk factors in our patient, it is difficult to say that any of them were significant. OHSS and consequent polycystic ovarian syndrome can cause coagulation disturbances but her values were all essentially normal. Diabetes can cause both blood vessel fragility and an increased likelihood of infection but, according to her tests; her diabetes was well controlled at the time.

On the other hand, she was morbidly obese, and Beattie et al (₆) found a linear relationship between increasing maternal weight and infection following CS. On the other hand, while recognizing obesity as a clear risk factor, Wolfe et al (₇) found that diabetes and hypertension were not associated with greater operative morbidity in obese women delivered by cesarean.

This may point to the advisability of antibiotic prophylaxis in all obese women undergoing CS, especially since Beattie et al (₆) found this to be the most significant protective factor.

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