CASE REPORT

Uterine artery pseudoaneurysm: A case of late intra-abdominal haemorrhage after caesarean section

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SUMMARY

Uterine artery pseudoaneurysm (UAP) is a rare acquired vascular malformation associated with vaginal bleeding or intraabdominal haemorrhage occurring after pelvic surgery. Pseudoaneurysm may present with delayed, severe haemorrhage after a seemingly uncomplicated initial postoperative period. Treatment is therefore necessary to prevent further complications. We describe here a case of a 32-year-old mother, who presented with abdominal pain and intraabdominal bleeding, 20 days after Caesarean Section. Computerised Tomography (CT) scan showed the presence of haemoperitoneum, suggestive of pseudoaneurysm at the right cervical artery which was successfully managed with emergency angiographic embolisation.

KEY WORDS:
Pseudoaneurysm; intraabdominal haemorrhage; embolisation; angiography

INTRODUCTION

Uterine artery pseudoaneurysm (UAP) is an uncommon postpartum or postoperative complication, with late presentation and potentially life-threatening. Pseudoaneurysm occurs when there is vascular injury due to inflammation, blunt or penetrating vascular trauma, and recent surgery. It has been reported that UAP is more common than previously thought, occurring in 2-3 per 1,000 deliveries, and may occur after non-traumatic delivery or abortion.[1] Spontaneous rupture results in unexpected postpartum haemoperitoneum, life-threatening vaginal bleeding or infected pelvic collection. Frequently, Caesarean delivery is implicated for development of pseudoaneurysm. UAPs may resolve spontaneously, or rarely, present with catastrophic bleeding requiring definitive treatment. High index of suspicion of UAP as a differential diagnosis is therefore vital for timely intervention and more favourable patient outcome.

CASE REPORT

A 32-year-old lady who delivered her first baby via emergency Caesarean Section (CS) for secondary arrest at 39 weeks 2 days period of gestation presented to the Emergency Department with a history of right hypochondriac pain, radiating to the back and left shoulder 20 days after surgery. The pain was sharp in nature with a pain score of 7/10. There was no history of abnormal vaginal bleeding, urinary or bowel symptoms. She had had a laparotomy and left ovarian cystectomy three years ago for left endometrioma. During the CS, dense adhesions were noted between the omentum and anterior abdominal wall, and at the posterior and right lateral aspect of the uterus, such that the right fallopian tube and ovary were not visible. The left fallopian tube was reported as normal.

At presentation, she was afebrile with a temperature of 36.7°C, blood pressure (BP) was 116/85 mm Hg, pulse rate (PR) was 118/min and oxygen saturation of 99% on room air. There were tenderness and guarding at the right hypochondrium with voluntary guarding. Her haemoglobin level was 11.3g/dl, white cell count was 14.6 x 10^3/µL, platelet was 606 x 103/µL, blood urea was 3.6mmol/L and creatinine was 136µmol/L. She was initially diagnosed as acute cholecystitis with cholelithiasis and given parenteral analgesia. She developed an episode of hypotension with BP of 96/75 mmHg which was resolved with fluid resuscitation.

Further assessment showed that there was a lower abdominal mass about 18-week size gravid uterus, with tenderness at the right hypochondrium on deep palpation and rebound tenderness. Caesarean scar was clean and well-healed. Bedside ultrasound examination demonstrated that the uterus measured 7.8 x 4.6 cm with poorly-defined mass of mixed echogenicity around it, likely representing blood clots, especially at the Pouch of Douglas. Endometrium appeared thin measuring 5 mm, and free fluid was noted at the Morrison pouch and splenorenal region. Speculum and vaginal examinations were unremarkable, with no evidence of vaginal bleeding nor genital tract trauma. She was commenced on parenteral Ceftriaxone and Metronidazole. CT scan was suggestive of a pseudoaneurysm at the right cervical artery, measuring 0.6 cm at the parametrium with lower abdominal haematoma. A provisional diagnosis of massive intraabdominal bleeding secondary to UAP was made within 24 hours of admission.

Overnight, she developed tachycardia with PR of 112/min, though BP remained stable with haemoglobin level of 7.5 g/dl. She was transfused with two pints of packed cells overnight and angiographic embolisation was arranged for the next day. Emergency angiographic embolisation with

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