Obstetric Anaesthesia
Annual Scientific Meeting 2021 goes virtual
10-11 June 2021

Uterine Rupture in a Non-Labouring Parturient

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Introduction

Uterine rupture is a rare but life threatening event with a quoted incidence between 0.7 and 5.1 per 10,000 deliveries in unscarred and scarred uteri respectively[1].

It most commonly presents during vaginal birth after caesarean section[2], and only rarely occurs in a non-labouring parturient[3].

We describe a case of uterine rupture in a non-labouring multigravida with resultant major postpartum haemorrhage requiring numerous surgical interventions to achieve haemostasis.

Case Report

Theatre Case 1

A 35-year-old gravida 4 para 2 lady presented at 39 weeks for an elective LSCS after an uneventful pregnancy. She had two previous uneventful LSCS's.

In theatre, prior to neuroaxial blockade, she suffered sudden onset severe lower abdominal pain with foetal bradycardia. The case was converted to a category one LSCS under GA.

On opening of the intra-abdominal cavity, the foetus was found to be extra-uterine and a uterine rupture was diagnosed. After delivery of the foetus, the uterus was repaired in the usual way.

Haemodynamic stability was ensured, the EBL was 1500ml and a POC haemoglobin was 111g/dL.

Theatre Case 2

In PACU, cardiovascular instability and vaginal blood loss necessitated an urgent return to theatre for an EUA of vagina and a blood transfusion of a total of 4 units of PRBCs during this case.

Haemostasis was reported to have been achieved using inter-uterine balloon tamponade and cervical brace sutures. A POC Hb was 146 g/dL and the EBL was 1000ml.

Despite this, cardiovascular instability persisted which led to concern over other differentials to bleeding including; anaphylaxis, decompensated cardiac disease, pulmonary embolism and amniotic fluid embolism.

Reassuringly, a POC echocardiogram revealed no significant abnormalities.

Haemodynamic stability was achieved with central access and a Noradrenaline infusion.

She was transferred to ICU intubated and ventilated post operatively.

Case Report

Intensive Care Unit

A triad of metabolic acidosis, rising vasopressor requirements and abdominal distension led to CT imaging.

This revealed intra and extra uterine haematoma formation (fig.1). Returned to theatre for emergency exploratory laparotomy.

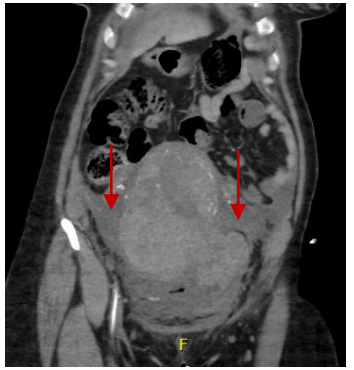


Figure 1

Theatre Case 3

Findings at laparotomy were scar dehiscence and arterial bleeding across a torn lateral section of the scar which was repaired.

Haemostatic massive transfusion was commenced and cardiovascular stability was achieved.

Thankfully, she was extubated the following morning on ICU with no reported maternal morbidity. The baby required limited supported therapy only.

Discussion

Rare Diagnosis: Uterine rupture must be considered as a cause of sudden and severe abdominal pain. If suspected, prompt delivery must be achieved.

Haemoglobin Testing: Haemoglobin results in the acute phase of bleeding must be interpreted with caution. Acute haemorrhage does not result in a reduction in haemoglobin concentration. In this case the 'normal' POC haemoglobin led to false reassurances being made.

Cross Specialty Communication: Formal cross specialty summary during the second theatre case may have avoided delay in the recognition of intra-abdominal bleeding.

Maternal critical illness requires a collaborative multidisciplinary approach to achieve the best possible outcome for both mother and baby.

References

1. Zwart JJ, Richters JM, Ory F et al; Uterine rupture in The Netherlands: a nationwide population-based cohort study. BJOG. 2009 Jul116(8):1069-78.
2. Halassy SD, Eastwood J, Prezzato J; Uterine rupture in a gravid, unscarred uterus: A case report. Case Rep Womens Health. 2019 Oct 1724:e00154. doi: 10.1016/j.crwh.2019.e00154. eCollection 2019 Oct.
3. Uterine rupture is associated with a history of caesarean section, even without labour. *BMJ 2003;326:g*