

Case Study: A Retroperitoneal Haematoma for Christmas

Viner R₁, Coundjipapadam C₁, Atkinson, A_{1,2}

Rosie.Viner@health.wa.gov.au

1 Fiona Stanley Hospital, Western Australia, Australia

2 King Edward Memorial Hospital, Western Australia, Australia



BACKGROUND

There are not many situations scarier for a Registrar than a 14 hour Christmas day shift and a surgical complication. But the quick action and multidisciplinary efforts by the team at this Tertiary Metropolitan Hospital of Western Australia meant they were able to effectively manage the rare and life-threatening complication of a retroperitoneal haematoma (RPH) following an emergency caesarean section. The literature has a lack of level 1 evidence for the management of iatrogenic retroperitoneal haematoma, but more recently interventional radiology with intra-arterial embolization or stent-grafting has become gold standard. We describe a case where this procedure was both life and fertility saving for an unlikely patient on Christmas day 2018.

CASE

Labour: On Christmas day a multiparous 26 year old female underwent an induction of labour (IOL) at 38 weeks for Gestational Diabetes Mellitus on Insulin and polyhydramnios (AFI 26cm). She was G3P2 with previous vaginal deliveries. She underwent an artificial rupture of membranes (ARM) and augmentation with oxytocin infusion. She proceeded to 7cm dilated where she was diagnosed with labour dystocia due to asynclitism requiring an emergency caesarean section. The lower uterine caesarean section confirmed asynclitism and was complicated by a small left angle extension and an estimated blood loss (EBL) of 1000mL.

On the Ward: Post-operatively MET Call for hypotension (BP 85/30) and was found to have a haemoglobin (Hb) drop from 126 down to 81. She had an ongoing BP 70/40 despite fluid resuscitation and 1U packed red blood cells (PRBC). There was a well contracted uterus and no vaginal blood loss to explain these findings but a bedside FAST scan revealed intra-abdominal free fluid. She was taken to theatre 4 hours post-operatively for exploratory laparotomy as a CAT 1.

Return to Theatre: She was found to have a peritonitic abdomen with a 30x20cm broad ligament retroperitoneal haematoma from a left uterine artery source. The bleed was considered beyond the scope of surgical control and as such Interventional Radiology attended intra-operatively and completed a right uterine and left internal iliac artery embolization. This provided control of the broad ligament haematoma and subsequently improved haemodynamics and the laparotomy concluded with the insertion of an abdominal drain and central line. She remained intubated and moved to the Intensive Care Unit (ICU). In total the patient received 7U PRBC and 10U Cryoprecipitate with a total estimated blood loss of over 3 Litres. She required reversal of hyperkalaemia with an insulin/dextrose infusion and antibiotics (piperacillin/tazocin) for 14 days to cover the risk of infection to the remnant haematoma.

Progress: This patient remained in hospital for a total of 16 days with the post-operative stay complicated by ileus, wound infection with *mycoplasma hominii*, neuropathic pain, reactive thrombocytosis (platelets 888), and foot drop. Much to our surprise, this woman was fully independent with ADLs and breastfeeding on discharge and remained well and in good spirits at her three month follow-up.



DISCUSSION

RPH can be a challenging diagnosis for clinicians due to the rarity and the non-specific symptoms. This complication is associated with significant morbidity and mortality and early detection is crucial. A high index of clinical suspicion should be held in patients with generalised abdominal, back, chest or groin pain post operatively, or symptoms of femoral neuropathy. These initial symptoms can be followed by a drastic progress to haemodynamic instability and falling haemoglobin levels. This case describes the iatrogenic scenario leading to RPH but other causes include trauma, wound dehiscence, arteriovenous malformations and spontaneous rupture of arterial aneurysms and the knowledge of these is pertinent to work in our field.