A neonate with fetal distress and anaemia

Introduction

This article reports the case of a 37-week gestation neonate delivered by emergency caesarean section for fetal bradycardia. At birth the baby was pale and floppy and needed resuscitation. On further examination, she was anaemic with an abdominal mass. On further investigations and laparotomy, this turned out to be a haemorrhagic luteinized follicular cyst. This case highlights that early recognition and appropriate management of neonatal haemorrhagic ovarian cysts is crucial for successful outcome.

Discussion

Ovarian cysts are fluid-filled ovarian tumours. The majority are benign cysts of germinal or graffian follicle in origin, e.g. simple cysts, theca lutein cyst and corpus luteum cyst. The majority of ovarian cysts undergo spontaneous regression and involution following delivery or even in utero (Carlson and Griscorn, 1972). Birth dystocia and respiratory distress have been reported from very large cysts.

In the newborn period large cysts may cause ascites, undergo torsion or infarction, and may lead to intestinal obstruction by membranous adhesions, rupture or bleed. Death may ensue because of massive haemoperitoneum (Abolmakarem et al, 2001). Antenatal percutaneous aspiration of ovarian cysts has been suggested in order to avoid potential perinatal complications, such as torsion and haemorrhage (Heling et al, 2002). In this case the fetal distress was the result of fetal anaemia secondary to haemorrhage into the large ovarian cyst.

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Conclusions

Neonatal haemorrhagic ovarian cysts are very rare and can present with severe fetal anaemia and fetal distress. Early recognition and appropriate management is crucial for a successful outcome as in this case. BJHM

Abolmakarem H, Tharmaratnum S, Thilaganathan B (2001) Fetal anemia as a consequence of haemorrhage into an ovarian cyst. *Ultrasound Obstet Gynecol* **17:** 527–8

Carlson DH, Griscorn NT (1972) Ovarian cysts in the newborn. *Am J Roentgenol* **116:** 664–72

Heling KS, Chaoui R, Kirchmair F, Stadie S, Bollman R (2002) Fetal ovarian cysts: prenatal diagnosis, management and postnatal outcome. *Ultrasound Obstet Gynecol* **20**(1): 47–50

Figure 1. Abdominal X-ray showing paucity of gas in the lower abdomen (arrow) as a result of the abdominal mass pushing the bowels loops towards the right.

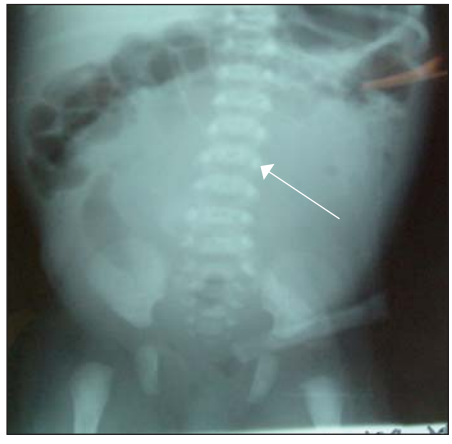
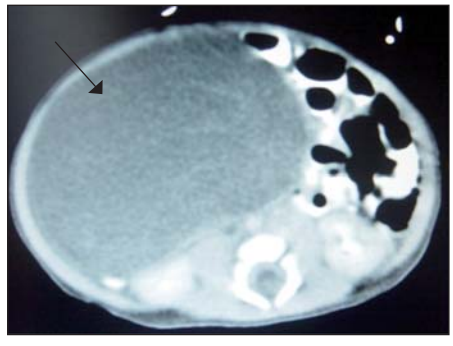


Figure 2. Computed tomography of the abdomen with contrast showing a 7x5x5 cm low attenuation mass (arrow), arising from the pelvis and extending into the abdomen, most likely right ovarian in origin.



Case Report

A baby girl was delivered by emergency caesarean section for fetal bradycardia at 37 weeks' gestation. The 20-week fetal anomaly antenatal scans had showed no obvious abnormalities. At birth the baby looked pale and floppy, needing resuscitation with bag and mask. The Apgar scores were 6 and 8 at 1 and 5 minutes respectively. The baby weighed 1.98 kg.

On examination she was noted to be pale with an abdominal mass extending from the left hypochondrium to the right iliac fossa. The initial blood results showed a low haemoglobin of 9.9 g/dl with normal white cell and platelet count. The urea, creatinine, electrolytes, C-reactive protein and liver functions tests were in the normal neonatal range. The Coombs test was negative. There was no evidence of haemolytic anaemia. She received packed cell transfusion for correction of anaemia.

An abdominal X-ray showed a paucity of gas in the lower abdomen (*Figure 1*). Ultrasound of the abdomen and pelvis showed a large pelvic mass with numerous irregular fluid-filled spaces. The liver, biliary tree and the kidneys were normal. A computed tomography scan of the abdomen and pelvis (*Figure 2*) with contrast showed a 7x5x5 cm low attenuation mass arising from the pelvis and extending into the abdomen, most likely to be right ovarian in origin.

Laparotomy showed a large right-sided ovarian cyst with haemorrhagic areas. She underwent right oopherectomy which on macroscopic examination showed multiple blood-filled cysts. Histopathology of the mass suggested a luteinized follicular cyst with no malignant features. She made good postoperative recovery and on follow up at 5 months of age, she was growing and developing normally with no ongoing problems related to the ovarian cyst.