17th World Congress in Fetal Medicine

A case of meconium peritonitis due to bowel perforation diagnosed at anomaly scan at 20 weeks

Sihna P
Tawam Hospital, ABU DHABI, United Arab Emirates

Objective

Meconium peritonitis and meconium pseudo-cysts can be diagnosed in antenatal period. However, it's presentation are variant. They can present as fetal ascites or echogenic bowel and cause fetal or neonatal distress, requiring close observation and care in tertiary centre.

Methods

G5 P3+1, all preterm delivery by cesarian section (CS) at 25 and 28 and 31 weeks for Abruption, preterm premature rupture of membranes and preterm labour respectively. IgG CMV positive. In the anomaly scan done privately on 7/2/2017 NAD, kidneys, 4 chambers, spine and profile have not been well seen. Dilated bowel with fetal ascites was noted. Possible diagnosis of Hirschsprung's disease and Down Syndrome was made. The patient has been referred to Tawam hospital FMU. On the 27/3/2017 a minimal to moderate amount of ascites and trace of pericardial effusion have been seen in the scan. Portal vein and bowels were dilated. The following scan on 14/5/2017 shows a very dilated bowel, fetal ascites had subsided but a large cystic lesion in the abdomen was present and appears to be part of the large bowel. No pericardial effusion noted. Genetic cause cannot be excluded in the absence of obvious fetal anomaly.

Results

Delivered by emergency CS at 33+2 wks, birth weight 1. 47 kg. Due to abdominal distension and antenatal findings further investigations were performed followed by laparotomy. Meconium pseudocyst, perforation in terminal ilium, malrotation with dense adhesions of small and large bowel were detected. Resection of necrosed bowel and ileostomy was performed due to in-utero perforation of terminal ilium. The newborn had glucose-6-phosphate dehydrogenase deficiency, a reducible Inguinal hernia and short bowel syndrome due to high ileostomy. Karyotyping was without pathological findings.

Conclusion

The aetiology of the ileal perforation is not known. There were no findings suggesting connective tissue disorder. Intra-uterine bowel perforation can occur secondary to a variety of abnormalities and cause sterile peritonitis in the fetus (generalised = type I). If sealing of the perforation does not take place, a thick-walled pseudo-cyst can form (type II) like in this case.