

Meconium Pseudocyst

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History

Newborn with prenatal history of polyhydramnios and abdominal calcifications.

Diagnosis

Meconium Pseudocyst

Additional Clinical

Distal small bowel perforation found at laparotomy.

Discussion

Meconium is a sterile mixture of desquamated epithelium, bile salts, enzymes, cholesterol and mucopolysaccharides. A chemical inflammatory process occurs when meconium spills into the peritoneal cavity. Bowel perforation may occur before or after birth. Etiology of perforation is largely related to obstruction (e.g., atresia, volvulus, meconium ileus). It is interesting that no obstructing lesion is found at surgery in a significant number of patients.

Peritonitis may be contained, fibroadhesive or generalized and quickly calcifies. Calcification patterns are variable. There may only be a few scattered calcifications, extensive peripheral plaque-like calcifications, scrotal/labial calcifications (patent process vaginalis), and pseudocyst calcification. Contained perforations result in the characteristic pseudocyst which is often right sided.

Fibroadhesive inflammation results in intense fibroblastic reaction and adhesion formation.

On radiography calcifications, free air, signs of bowel obstruction, ascites, or pseudocyst may be found. On sonography calcifications, echogenic fluid containing particulate material, free air or pseudocyst may be seen. On MR, meconium is hyperintense on T1 sequences.

Findings

CR-Subhepatic mass with faint peripheral calcifications; no dilated loops of bowel.

US-Complex sub-hepatic mass with peripheral calcifications and heterogeneous internal contents.

Reference

Foster MA, et al. Meconium peritonitis: Prenatal sonographic findings and their clinical significance. *Radiology* (1987); 165:661-665.

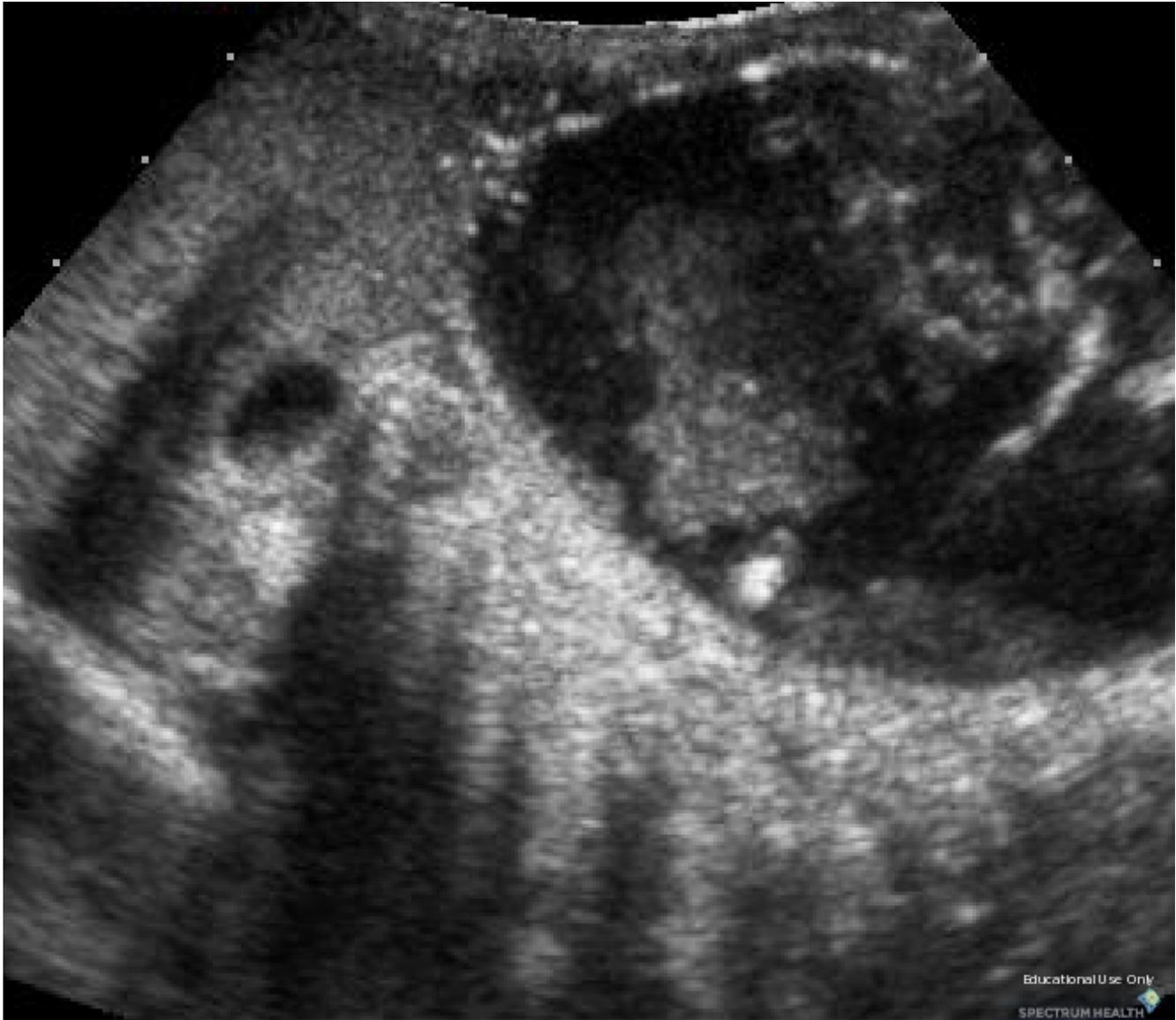
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