calciuria in type 1 and 2. Hypomagnesemia is seen in minority. Urinary levels of chloride are also very much elevated which helps in differentiating this picture from chronic vomiting and cystic fibrosis. The tubular defect in Bartter or Gittlemann syndrome cannot be corrected [6], but with careful fluid and electrolyte management, long term prognosis is good. We treated the child with proper fluid and electrolyte correction following which hyperkalemia improved. The potassium levels normalised after a period of eight days without any therapy for potassium corrections except for restriction. Urinary electrolytes continued to remain elevated. The child was discharged in a stable condition after establishing oral feeds.

The child followed-up with us two weeks after the discharge which was uneventful. Our case focuses light on the rare presentation of Bartter syndrome with acute kidney injury probably due to nephrocalcinosis which might have started in utero.

RAVI TEJA JALADI,* ARNAB BISWAS AND SONALI MITRA
Department of Paediatrics,
Nil Ratan Sircar Medical College and Hospital,
West Bengal, Kolkata, India.
**jaladiraviteja@gmail.com*

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Fetal Ovarian Cyst Managed Laparoscopically in the Neonatal Period

Most antenatally diagnosed fetal cystic lesions are of renal or ovarian origin, and timely postnatal diagnosis facilitates early and appropriate management. We report early diagnosis of a fetal abdominal cyst with successful laparoscopic management.

A 1900 gram female baby was born vaginally at 38 weeks to a 24-year-old second gravid mother who had conceived spontaneously. Antenatal period was uneventful. Sonography at 30 weeks of gestation revealed a large well defined intra-abdominal fetal cystic lesion extending from pelvis to sub-hepatic region measuring, 4.8 cm × 4.2 cm × 4.8 cm with evident septations, with maximum wall thickness of 3.5mm. No subsequent antenatal scans were available. Baby did not need any resuscitation after birth but was detected with a palpable lower abdominal lump that was cystic in consistency. Rest of the examination including vitals was normal. A postnatal abdominal sonography showed a large cystic mass located in the right flank extending from sub-hepatic region to the pelvis measuring approximately 6.1 cm × 4 cm × 4.6 cm in size with internal solid areas (possibly fibrinous products) with no obvious vascularity or fluid debris level. Right ovary was not visualized, right kidney was seen distinctly separate from the cyst, and uterus, left ovary and left kidney were normal. Plain *X*-ray abdomen revealed displacement of bowel loops to left side. These findings were consistent with the diagnosis of ovarian cyst with internal hemorrhage (complicated). A thyroid scan performed later was normal. Laparoscopic excision of cyst with preservation of rest of the ovary was performed using three ports and a maximum of 10mm pneumo-peritoneum on day 8 of life. The cyst was seen to originate from right ovary, had a short pedicle and had undergone torsion on its own axis. Dark brown color fluid was aspirated from cyst, which was excised with Harmonic as energy source. Histopathological examination of excised cyst revealed complicated ovarian cyst with necrosed wall. Left ovary was normal. Intraoperative and postoperative course was uncomplicated. Breastfeeding was started on first postoperative day. The baby is currently on follow-up, is feeding and growing normally.

Fetal cystic masses in females are mostly benign and ovarian in origin. In a case series of 41 fetal abdominal cysts, 21 were ovarian cysts whereas 11, 6 and 3 cases were found to be bile duct cyst, intestinal duplication and mesenteric cysts respectively [1]. An antenatally detected isolated, non-lethal lesion should be monitored with repeated ultrasound examination, as the evolution of such a lesion *in utero* is extremely variable [2]. Serial antenatal ultrasounds help to determine the location and nature of the cyst and plan management. Accurate delineation of the mass may require fetal MRI.

Ovarian cysts are the commonest ovarian tumors in newborn period. Simple ovarian cysts are characteristically

round, anechoic, uni-locular, and usually thin walled. Complex cysts are characterized by presence of multiple septations, fluid levels, or mobile internal echoes [3]. Management options include expectant management, antenatal or neonatal cyst aspiration, laparoscopic cystectomy, and laparotomy. About 25-50% of small ovarian cysts (<4 cm in diameter) regress spontaneously often beginning at the end of pregnancy or within first few postnatal days with complete resolution within 6 months as hormonal stimulation decreases [4]. Only symptomatic cysts or cysts with diameter >4 cm, which do not regress or enlarge, should be surgically treated [5,6]. One in two cysts may undergo torsion, as in our case, occurring mostly in the antenatal period. In cases of torsion, the aim of treatment is to avoid complications associated with its rupture and preserve as much as ovarian parenchyma as possible. Open or laparoscopic excision with total oophorectomy or an ovary preserving procedure can be done. Laparoscopy provides for excellent visualization of the contralateral ovary, rapid postoperative recovery, and excellent cosmesis.

To conclude, fetal cystic lesions are mostly benign and ovarian in origin in females. Sonography helps localize the organ of origin and decide appropriate management.

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SOMALIKA PAL,[1] PRITI KUMARI,[2] ASHISH JAIN[1]* AND SHANDIP KUMAR SINHA[2]

Department of Neonatology[1] and Pediatric Surgery,[2] Maulana Azad Medical Collage and Lok Nayak Hospital, New Delhi, India.

**neoashish2008@gmail.com*

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