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Bilateral Colonic Inguinal Hernia in a Preterm Infant

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1. Abstract

We presented a case of preterm infant with bilateral colonic inguinal hernia, which was diagnosed radiologically by the initial plain radiograph and subsequent lower gastrointestinal (LGI) study by contrast enema.

2. Case Presentation

A Preterm infant was born with gestational age 31 weeks and birth body weight of 885 grams via cesarean section. The patient was immediately transferred to neonatal intensive care unit (NICU) due to respiratory distress. During his NICU stay, he suffered from progressive abdominal distention and poor nutrition intake. Plain radiograph showed mildly diffuse bowel distension and presence of bowel gas at bilateral inguinal region with the diagnosis of inguinal hernia (Figure 1). Lower gastrointestinal study was arranged with the suspicion of lower intestinal tract obstruction. LGI study with contrast enema revealed bilateral inguinal hernia involving the sigmoid colon, ascending colon, cecum and terminal ileum with luminal narrowing of the colon in the hernia rings. (Figure 2) The patient underwent bilateral laparoscopic herniorraphy and the intake had gradually increased back to acceptable amount.

Figure 1: Much bowel and colon air with bilateral inguinal hernia.

Figure 2: Bilateral inguinal hernia with sigmoid colon, ascending colon, cecum and terminal ileum. There are luminal narrowing of the colon in the hernia ring.

3. Discussion

The inguinal canal is a channel through the anterior abdominal wall which contains spermatic cord in men and round ligament in women. In infants the canal is short and crosses the abdominal wall perpendicularly rather than obliquely [1]. This increases the risk of developing inguinal hernia in infants, particularly the premature infants, due to poor obliteration of processes vaginalis and increases intraabdominal pressure as a result of mechanical ventilation usage [2]. Most of the reported symptoms are intermittent bulge in the groin, vomiting, or abdominal distention. Imaging diagnosis mainly relies on ultrasonography. Plain radiograph is in limited use in the evaluation of inguinal hernia [3]. The hernia in the inguinal region usually contains the omentum and small intestine but rarely can contain unusual contents like the appendix, ovary with fallopian tubes, urinary bladder, sigmoid colon, and cecum [4].

There were few imaging reports about inguinal hernia in plain radiographs and lower gastrointestinal series studies. As we know, bilateral inguinal hernia with large bowels has not been reported. In this report, we clearly depicted the hernia sacs and contents with contrast enema before the surgical management. The patient's poor intake may be due to intermittently partial obstruction at the hernia sac on one side or two sides simultaneously. Currently, routine contralateral laparoscopic exploration and repair remain debated, [5] as not all patent processes vaginalis will become clinical hernias. Since nutrition plays a crucial role in infant's development, early recognition and management of the cause of poor intake related to hernia may be important.

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