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Letter to Editor

Bilateral Morgagni hernia in a two-month-old infant with a history of umbilical cord hernia status repair as a neonate

Keywords:
Bilateral Morgagni hernia
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Dear Editor,

Morgagni hernias (MH) are a rare form of congenital diaphragmatic hernia (CDH) characterized by herniation of abdominal contents into the thoracic cavity through a retrosternal diaphragmatic defect. MH constitutes <5% of all CDH.[1] Approximately 90% of MH are on the right side. MH has variable clinical presentations. Most of the cases are not discovered until later in childhood or adulthood. The differential diagnosis of MH is quite extensive and includes a pericardial cyst, loculated pneumothorax, or a hiatal hernia. MH is associated with other congenital anomalies, such as congenital heart diseases, chest wall deformities, intestinal malrotation, omphalocele, gastroschisis and chromosomal anomalies (e.g., trisomies 13, 18 and 21).[2] Co-occurrence of a midline defect with MH is a rare finding frequently linked to other anatomical anomalies and genetic disorders.[3] However, cases in which the etiology is unclear have also been reported.[4] Concurrent MH and umbilical cord hernia (UCH) have not been reported so far. UCH may be easily misdiagnosed as a small omphalocele to similar morphologic features (Covering eviscerated abdominal contents with a sac comprising outer amnion and inner peritoneal lining). Unlike an omphalocele, UCH has an intact abdominal wall with adequate muscle development and a complete umbilical ring covered by a small skin cuff measuring ~2.5 cm[5]. The possible association of UCH with the omphalomesenteric duct (OMD), especially with prolapsed persistent omphalomesenteric duct (POMD) in UCH, is possible but quite rare.[5]

We report a 2-month-old boy with a history of prolapsed POMD into UCH status post repair as a neonate (Fig. 1) initially presented to our hospital for evaluation of respiratory infection. Physical exam showed an infant in moderate distress. A chest X-ray obtained during the evaluation showed massive herniation of bowel loops into the thoracic cavity, obscuring heart and mediastinal shadow with a bilateral reduction in lung aeration (Fig. 2A and B). An exploratory laparotomy revealed bilateral MH with hernial sac. The hernial sac was excised, the liver and transverse colon were pulled back into the abdomen, and the diaphragmatic defect was interruptedly closed with 2–0 silk. The postoperative hospital course was uneventful, and the patient was discharged on the seventh postoperative day in stable condition. At a follow-up of 36 months, the child was doing well with no further episodes of respiratory distress and had a normal chest X-ray.

This case is unique in that it demonstrates the coexistence of MH and UCH. We believe this is the first well-documented report of these co-existent anomalies. Prolapse of adjacent ileal limbs through a POMD was another remarkable feature of this case.

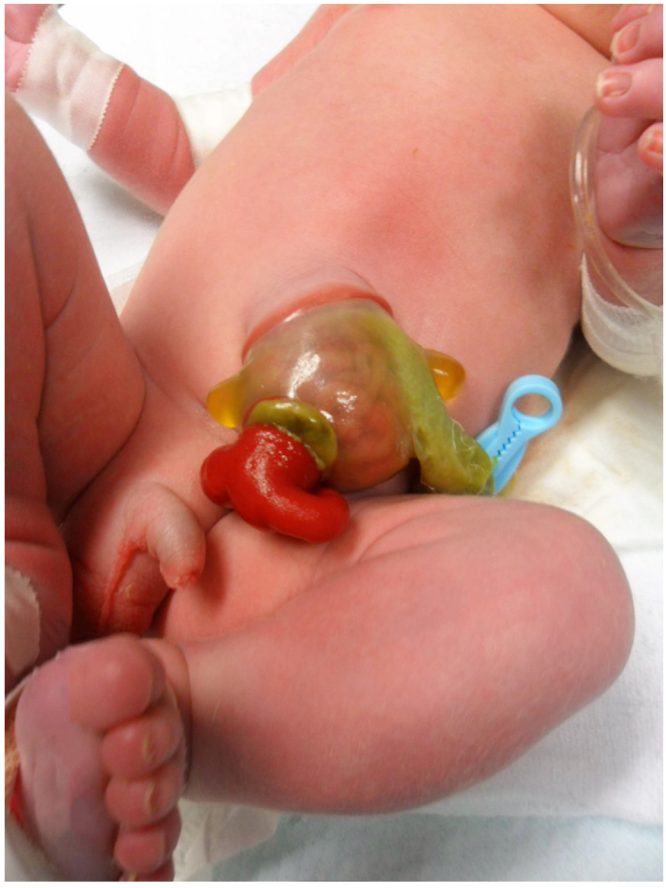

Fig. 1. Picture of umbilical cord hernia associated with complete evagination of the patent omphalomesenteric duct and prolapse of adjacent ileal limbs.

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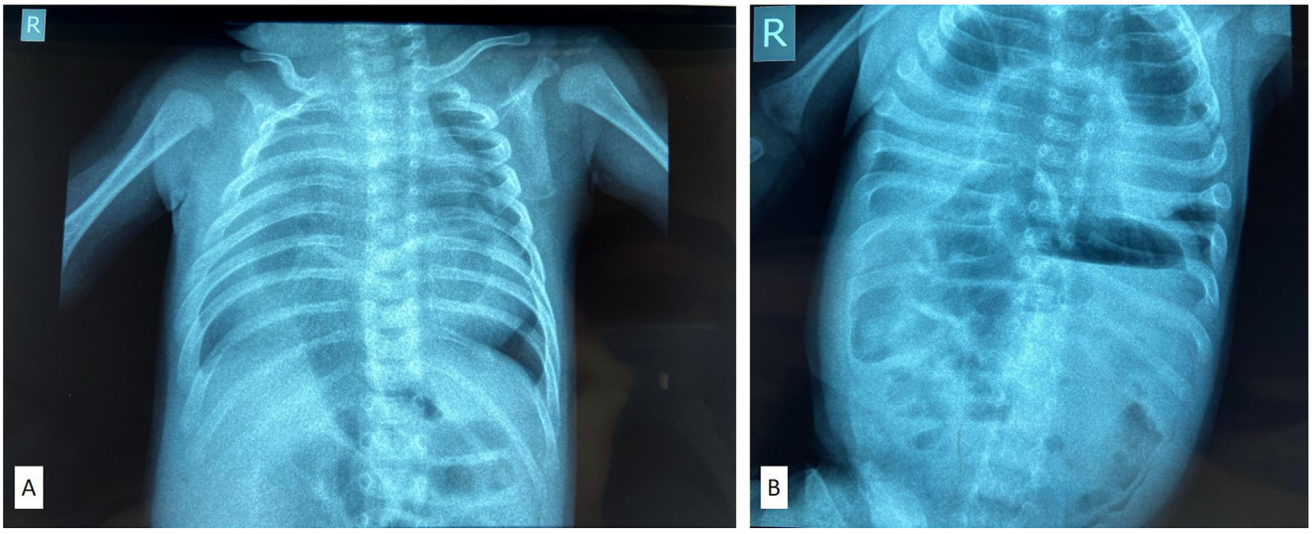

Fig. 2. A-B. A: Chest X-ray in standing position and PA projection showing massive herniation of bowels into thoracic cavity, obscuring heart and mediastinal shadow with a bilateral reduction in lung aeration; B: Abdominal and chest X-ray in standing position showing the same massive herniation into thoracic cavity with reduced bowel content in the abdomen.

Declaration of competing interest

The authors have no conflict of interest to declare.

Acknowledgment

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