[NM-231] Absent Midgut in a Newborn found on Laparotomy for Abdominal Compartment Syndrome, a Case Report

Sloan R, Reddy A
University of Kentucky , Lexington , KY, USA

We report a rare case of a newborn who presented with distended bowel on prenatal ultrasound and was found to have absent midgut on laparotomy.

On routine prenatal ultrasound, patient had bowel dilation of approximately 5cm. Her mother, who is a well controlled type 1 diabetic and G2P2 was admitted to the hospital in order to receive steroids for lung maturity and scheduled c-section the following day. Patient was born at 33 weeks and weighed 2.4kg. Apgars were 7 and 7. She was transferred to the NICU and was intubated for worsening respiratory distress secondary to abdominal compartment syndrome which was not relieved by placement of an orogastric tube. Bedside ultrasound showed some dilated loops of bowel and large amount of intra abdominal free fluid. The patient was taken to the OR within the hour for exploratory laparotomy with a presumptive diagnosis of abdominal compartment syndrome secondary to bowel obstruction. 2mcg/kg of fentanyl and 1mg/kg rocuronium were given for anesthesia. During laparotomy, 200 mL of serosanguinous fluid was suctioned with resulting improvement in ventilation. Surgeons were unable to identify any midgut although a portion of the distal colon was found. The patient had intact reproductive organs and bladder. In view of the poor prognosis, the surgeons spoke to the neonates parents to determine future course of action. The family decided on palliative care. Abdomen was closed, and the patient was transported to the NICU intubated.
The following day a family meeting was held with a multidisciplinary team involving the pediatric surgeon, intensivist and palliative care physician. Following the discussion, the family elected for comfort care only and the patient was made DNR. She was extubated and given morphine and versed for palliative management. She died approximately 8 hours later.

Within our academic institution, this is the first reported case of a neonate with an absent midgut. There are a few case reports of loss of bowel in the neonate following gastoschisis in utero. At birth, these patients did not have an abdominal wall defect seen on prenatal ultrasound but lapartomies revealed extensive bowel loss. Our surgeons hypothesized that an ischemic event in utero may have resulted in liquefication necrosis of the bowel. The long term options for this patient were extremely limited. Keeping the patient alive to an age where she could undergo a bowel transplant would have been extremely difficult and wrought with complications. Abdominal compartment syndrome in children is often due to trauma or infection. Abdominal compartment syndrome is rare in children but mortality rates are high.

This is a very rare case of absent midgut presenting as respiratory distress secondary to abdominal compartment syndrome.
