

# A rare case of rectal perforation in high anorectal malformations

## ABSTRACT

Spontaneous perforation is a rare complication in anorectal malformation. The colon is the most common site of perforation in anorectal malformations.<sup>[1]</sup> The median age of perforation is 48 h. Here, we report a case of a newborn male with high anorectal malformation with perforation in the blind pouch of the rectum at 18 h of life.

**Keywords:** Anorectal malformation, colostomy, neonates, pneumoperitoneum

## INTRODUCTION

The incidence of spontaneous perforation in a newborn with anorectal malformation is 2%–9.5%.<sup>[2]</sup> The most common site of perforation is the colon.<sup>[3]</sup> The aim of this case report is to emphasize that early detection of complications (pneumoperitoneum) reduces morbidity and mortality.

## CASE REPORT

A term male baby delivered by emergency LSCS in view of nonprogression of labor was admitted to the neonatal intensive care unit (NICU) in view of the absent anal opening. All the antenatal scans were normal, with no maternal comorbidities. Perineal examination revealed an absent anal opening. The baby was shifted to tertiary care NICU at 2 h of life in view of the above diagnosis. In view of the major congenital anomaly, two-dimensional ECHO was done, which was normal. Ultrasonography abdomen was suggestive of nonvisualization of the left kidney. Serial X-rays of the abdomen and pelvis in erect posture were taken every 6 h to see the descent of gas shadow. An X-ray at 8 h of life showed the descent of gas shadow till the ileal region. At this point, the plan was to monitor for further descent of gas shadow. At 18 h of life baby had sudden abdominal distension with visible veins in anterior abdominal wall. Bowel sounds

were not heard. X-ray of erect abdomen suggestive of pneumoperitoneum [Figure 1].

The baby was taken for emergency laparotomy after initial resuscitation with written informed consent. Operative findings: A small perforation of approximately 5 mm was seen in the most dependent part of the distal blind ending rectal pouch [Figure 2]. The perforation was closed using Vicryl - 5.0, interrupted sutures with a protective left pelvic colostomy [Figure 3]. Postsurgery, the baby was kept on a ventilator for 1 day and extubated after 48 h. The colostomy started functioning on day 5. The long-term plan is to work up for the nonvisualization of the left kidney. Distal cologram at 3 months of age followed by staged anal reconstruction.

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Figure 1: Pneumoperitoneum with football sign

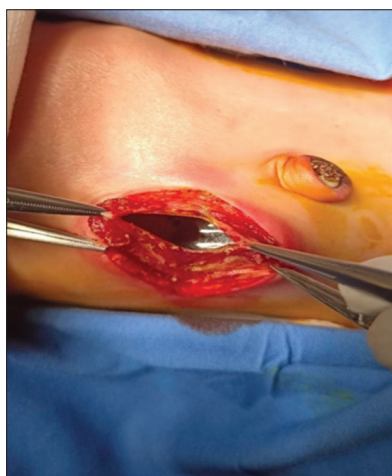


Figure 2: Meconium in peritoneum

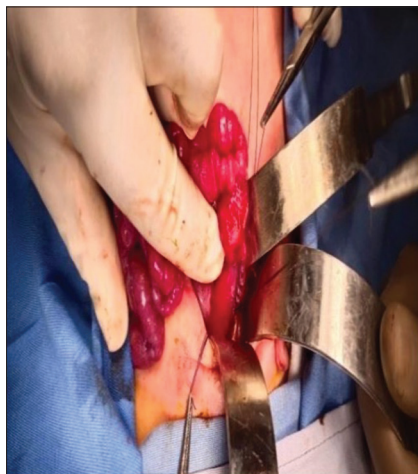


Figure 3: Perforation of the blind pouch of rectum sutured

## DISCUSSION

Anorectal malformations occur in approximately 1/3000 live births and are more frequent in males.<sup>[4]</sup> Local examination of the perineal region is often enough to confirm the diagnosis.

The primary intention in this baby is to follow the descent of gas shadow up to the rectum and decide the type of anorectal malformation (high/intermediate/low) followed by surgical intervention. The usual period for the gas shadow to descend till the rectum is approximately 18–24 h before we decide on the mode of surgical intervention.

Here, to our surprise, at 18 h of life, the baby had developed pneumoperitoneum (perforation of the blind pouch of the rectum). Prompt diagnosis and immediate exploratory laparotomy, closure of perforation, and sigmoid colostomy were done.

Delay in diagnosis of anorectal malformation is not uncommon. Spontaneous perforation of the colon is a rare complication, estimated to occur in 2% of neonates, but rises to 9.5% when diagnosis is delayed.<sup>[2]</sup> Bowel perforation increases the neonatal mortality from 3% to 23%.<sup>[1]</sup>

## CONCLUSION

Very few cases have been reported about perforation in anorectal malformation and rectal perforations being the rarest among them. An early diagnosis with serial X-rays of the abdomen is important for anorectal malformation, mainly to give better results and prevent complications.

## Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the legal guardian has given his consent for images and other clinical information to be reported in the journal. The guardian understands that names and initials will not be published and due efforts will be made to conceal patient identity, but anonymity cannot be guaranteed.

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## Conflicts of interest

There are no conflicts of interest.

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