DOI:10.5958/j.2319-5886.2.4.156

International Journal of Medical Research & Health Sciences

www.ijmrhs.com Volume 2 Issue 4 Oct-Dec Coden: IJMRHS Copyright @2013 ISSN: 2319-5886

Received: 26th July 2013 Revised: 15th Aug 2013 Accepted: 24th Aug 2013

Case report

IDIOPATHIC NEONATAL RECTAL PERFORATION: A CASE REPORT

*Nyamannawar Babu[1], Nagathan Vikram[2], Vallabha Tejaswini[3]

[1]Associate Professor of Surgery, [2] Resident in Surgery, [3]Professor & Head, Department of Surgery, Shri B.M.Patil Medical College, Bijapur, Karnataka, India

*Corresponding author email: babugouda@icloud.com

ABSTRACT

Idiopathic perforation of rectum in newborns is extremely rare. Etiology of spontaneous neonatal rectal perforation is unknown. We report a case of idiopathic rectal perforation in a neonate who presented with signs of perforative peritonitis. This case is reported because of its rarity.

Keywords: Rectal perforation, Spontaneous gastrointestinal perforation.

INTRODUCTION

Perforative peritonitis is one of the common neonatal emergencies encountered. It is life threatening condition. Such perforations are explained by mechanical distal obstruction like anorectal anomalies[1], Hirschsprung's disease[2], mechanical injury like rectal thermometer usage, and administration of contrast enema[3]. Perforations are commonly observed in small intestine, followed by large intestine, and stomach[4]. Perforation of the rectum without a known etiological factor such as injury, iatrogenic cause, inflammatory disease, and distal obstruction is defined as the idiopathic perforation of the rectum[4]. We report a case of idiopathic neonatal rectal perforation for its rarity.

CASE REPORT

A day one, term, home delivered male baby presented to hospital with complaints of distension of abdomen noticed at 6 hours after Shri B M Patil Medical College Bijapur. There was no history of resuscitation, or rectal instrumentation. Child had normal antenatal history and care. It weighted 2.5 Kg. Child was acutely ill, lethargic with cold peripheries, hypothermia, tachycardia, tachypnea with feeble peripheral pulses. The abdomen was distended with signs of peritonitis. Anus was normally sited. Hematological investigations were normal & radiography revealed massive pneumoperitoneum (Fig.1). Baby was resuscitated with correction of fluid deficit, inotrope support, and broad spectrum antibiotics. Explorative laparotomy showed. Pneumoperitoneum, fecal peritonitis with 0.5 cm wide perforation on the rectum. Closure of rectal perforation with loop sigmoid colostomy was done. Postoperative recovery was uneventful. Histopathology suggested benign nonspecific

inflammatory pathology. Colostomy closure was done after 6 months. At follow up the baby has normal growth development.

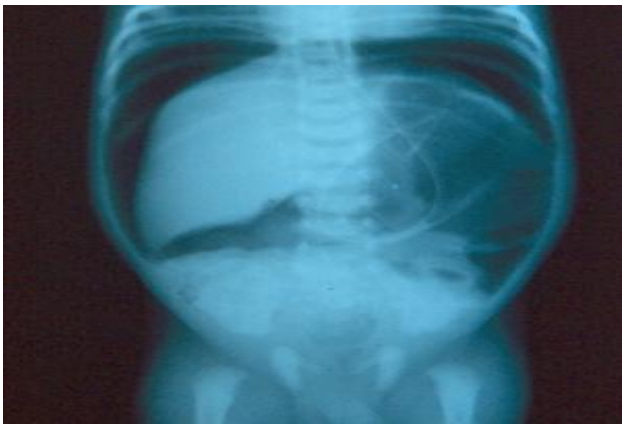

Fig.1: Erect x ray abdomen showing gross pneumoperitoneum (saddle sign)

DISCUSSION

The etiology of spontaneous intestinal perforation is still being debated. The common identifiable etiologic factors are mechanical distal obstruction like anorectal malformations[1], Hirschsprung's disease[2], mechanical injury by thermometer usage, and contrast enemas[2]. However these factors were absent. Ischemic necrosis, secondary to a localized vascular accident in the wall of the affected viscus could explain such spontaneous intestinal bowel perforations[5]. They noticed six out of seven babies had intestinal perforations on the anti-mesenteric aspect of the bowel, indicating localized vascular accident as possible etiology. Congenital segmental absence of intestinal wall musculature is another proposed etiologic factor to explain idiopathic neonatal intestinal perforations [6].

Idiopathic intra-peritoneal perforation of rectum in newborn is extremely rare. There is only one case reported in literature [4]. However there are many reports, describing extra-peritoneal perforation of rectum which classically presents as spreading cellulites in perianal and buttock regions with or without leakage of feces[7]. In such a scenario diverting proximal sigmoid stoma with drainage of perianal region is advised. Defects in pelvic floor are noticed in such babies. In intra-peritoneal perforation of rectum, early diagnosis and prompt resuscitation can't be overemphasized. Radiography allows earlier diagnosis and prompt surgical treatment. The abdominal upright film will show "saddle" or "football" sign due to the massive pneumo - peritoneum. Isolated rectal perforation can be managed by closure of perforation, if general condition is stable. In case of severe sepsis, proximal diverting sigmoid stoma with closure of perforation is a safer alternative.

In conclusion there are many factors associated with Idiopathic neonatal rectal perforation, such as localized ischemia, and defect in the muscular wall of the bowel. In a given case their relative significance is difficult to assess. Early recognition of the perforation is of paramount importance for a successful outcome. This case is being reported for its rarity and to inform that though rare, it can occur.

Conflict Of Interest: Authors do not have conflicts of interest.
Funding Source: Nil

REFERENCES

1. Sharma SB, Gupta V, Sharma V. Gastrointestinal perforations in neonate with anorecctal malformations. Indian J Gastroenterol. 2004;23:107-08.
2. Khan TR et al. Neonatal pnemopertoneum: a critical appraisal of its causes and subsequent management from a developing country. Pediatr Surg Int. 2009;25:1093-97.
3. De Feiter PW, Soeters PB, Dejong CH. Rectal perforations after barium enema: a review. Dis Colon Rectum. 2006;49:261-71.
4. Prabhakar G. Spontaneous gastrointestinal perforation in the neonate. Indian Pediatr. 1991;28:1277-80.
5. Weinberg G, Kleinhaus S, Boley SJ. Ideopathic intestinal perforations in the newborn: An increasingly common entity. J Pediatr Surg. 1989;24:1007-08.

6. Husain AN, Hong HY, Gooneratne S, Muraskas J, Black PR. Segmental absence of small intestinal musculature. Pediatr Pathol. 1992;12:407-15.
7. Davies MR, Cywes S, Rode H. Prenatal perfotion of the extraperitoneal part of the rectum associated with a developmental defect of the pelvic floor. Z Kinderchir. 1984;39:271-3.