

## Case Report

# Neonatal gastric perforation: a case report

Narayan Das\*, Mani Ranjan Debbarma

Department of Surgery, Government Medical College & G B P Hospital, Agartala - 799006, Tripura (West), India

**Received:** 1 November 2013

**Accepted:** 12 November 2013

**\*Correspondence:**

Dr. Narayan Das,

E-mail: narayandas9862019118@gmail.com

© 2014 Das N et al. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

### ABSTRACT

Gastric perforation (GP) of the neonate is a rare, serious, and fatal complication of uncertain etiology. This report describes the case of a 3 days female patient presenting with gastric perforation.

**Keywords:** Neonate, Gastric perforation

### INTRODUCTION

Gastric perforation (GP) among neonates is a rare but frequent fatal condition of uncertain etiology. This report documents a case of 3 days female patient presenting with gastric perforation and surgical correction was performed successfully.

### CASE REPORT

A three days female child was referred from the department of Paediatric to the department of Surgery of AGMC & GBP Hospital with excessive crying, distension of abdomen, feeding intolerance, respiratory distress and poor activity. On general examination of the baby was 2 kg and per abdominal tenderness and guarding were present and bowel sound was absent. Abdominal X-ray in erect posture suggestive of gas under the right dome of diaphragm (Figure 1). The patient was prepared for surgery with adequate monitoring and vigilance. Laparotomy was performed and a 3mm of diameter of perforation was found near the greater curvature of stomach and repair done in two layers with 3-0 vicryl (Figure 2). The post operative course was uneventful and patient was discharged in time.



**Figure1: X-ray of the chest shows - gas under the right dome of diaphragm.**



**Figure 2: Post operative picture of the neonate.**

## DISCUSSION

Gastric perforation (GP) of the new born is rare, serious, and life-threatening problem, and its etiology remains unclear.<sup>1</sup> The most common manifestations were poor activity, abdominal distension, and respiratory distress.<sup>2</sup> Causes for neonatal gastric perforation can be categorized as spontaneous or traumatic.<sup>3</sup> Gastric perforation seen in newborns with asphyxia, prematurity, necrotizing enterocolitis, and steroid usage.<sup>4</sup> The most common radiographic finding in gastric perforation is pneumoperitoneum, and significant enough to cause elevation of the diaphragm and compression of the lungs.<sup>5</sup> Gastric perforation occurred on post natal days 2-7 and presented with nonspecific manifestations. The mortality was significantly higher in premature than in term infants. Regardless of cause, a timely diagnosis of gastric perforation must be made and surgical correction be performed to prevent significant morbidity and mortality. A trend towards higher mortality in infants with lower birth weight was observed (>2500g, 28%;

1501-2500g, 52%; 1000-1500g, 60%; <1000, 100%) neonatal gastric perforation.

## CONCLUSION

Neonatal gastric perforation is a rare, serious, and life-threatening problem of uncertain etiology and is associated with high mortality, particularly in premature infants. There is also a trend towards higher mortality in lower birth weight infants.

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: Not required*

## REFERENCES

1. Teruik K, Iwai J, Yamada S, Takenouchi A, Nakata M, Komatsu S, Yoshida H. Etiology of neonatal gastric perforation: A review of 20 year's experience. *Pediatr Surg Int*. 2012 Jan;28(1):9-14.
2. Lin CM, Lee HC, Kao HA, Hung HY, Hsu CH, Yeung CY, Sheu JC, Wang NL. Neonatal gastric perforation: Report of 15 cases and review of literature. *Pediatr Neonatol*. 2008 Jun;49(3):65-70.
3. Whitney CM, David WG. Neonatal gastric perforation. *Journal of Perinatology*. 2003;23:345-7.
4. Ibe BC, Vgbam GM. Spontaneous gastric perforation in preterm low birth weight infants. Possible traumatic aetiology. A report of two cases, *Cent Afr Med* 1994;40:161-3.
5. Swischu KC. *Radiology of Newborn and Young infant*. Baltimore MD: Williams &Wilkins; 1980: 321, 497-499.

DOI: 10.5455/2320-6012.ijrms20140272

**Cite this article as:** Das N, Debbarma MR. Neonatal gastric perforation: a case report. *Int J Res Med Sci* 2014;2:358-9.