

# Neonatal gastric perforation: when to expect and how to manage

**A** 25-week-old, 1.2 kg neonate developed intraperitoneal total parenteral nutrition extravasation from a misplaced umbilical vein catheter, which was subsequently drained percutaneously using a cannula. Despite initial improvement, progressive abdominal distention developed 2 days later with acute gastric dilatation noted on serial abdominal X-rays (*Figure 1a*). Regular 4-hourly nasogastric tube aspiration temporarily improved the distention, but her lactate levels remained high. Four days later, she deteriorated and abdominal X-ray demonstrated a pneumoperitoneum

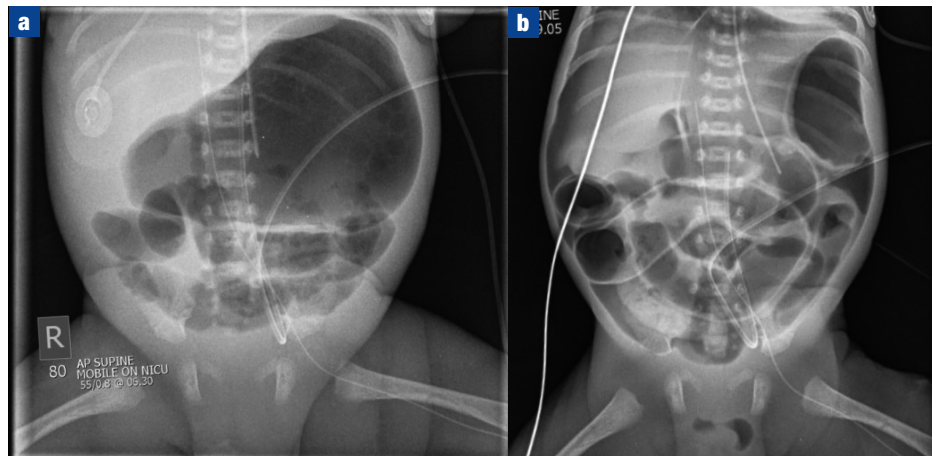
(*Figure 1b*). Urgent laparotomy revealed a large gastric perforation along the greater curvature which was repaired.

Neonatal gastric perforation is a rare, yet commonly fatal condition of unclear aetiology. It commonly manifests with acute abdominal distention and respiratory distress (Lin et al, 2008). Early diagnosis and intervention may improve prognosis. If neonatal gastric distention is identified,

then a regularly aspirated nasogastric tube is mandatory to minimize the risk of gastric perforation. A follow-up abdominal X-ray to confirm the effectiveness of decompression is recommended. **BJHM**

Lin CM, Lee HC, Kao HA et al. Neonatal gastric perforation: report of 15 cases and review of the literature. *Pediatr Neonatol*. 2008 Jun;49(3):65–70. [https://doi.org/10.1016/S1875-9572\(08\)60015-7](https://doi.org/10.1016/S1875-9572(08)60015-7)

**Figure 1. a.** Abdominal X-ray showing severe gastric distention in spite of correctly sited nasogastric tube. This should prompt urgent and regular aspiration from the nasogastric tube, followed by a further abdominal X-ray to demonstrate effective decompression. **b.** Abdominal X-ray showing significant pneumoperitoneum and decompression of the previously distended stomach.



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