

HUGE PERFORATED GASTRIC ULCER IN PEDIATRIC POPULATION BEYOND NEONATAL AGE: A COMMON ANOMALY?

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Introduction

- Perforated gastric ulcers (PGU) is a common surgical emergency with morbidity and mortality globally in adults.
- PGU in infants and children on the other hand are uncommon.
- In the pediatric age group, multiple studies explored neonatal gastric perforation which occurs within the first week of age. There is however little reports on PGU occurring in the pediatric age group beyond the neonatal period.

Case Summary

- A 10 year old girl with underlying VACTERL anomaly presented with abdominal pain and vomiting for 2 days
- No history of over the counter analgesia
- Upon presentation, child was septic, dehydrated, tachycardic and also had abdominal signs of peritonism
- Septic parameters ere raised with decompensated metabolic acidosis
- Abdominal x-ray shoed gross pneumoperitneum [Figure 1.1]
- After adequate resuscitation, surgery was performed
- Intraoperative findings
 - generalized contamination with food content
 - A huge gastric perforation at anterior body of stomach measuring 8cm x 4cm was seen. [Figure 1.2]
 - The defect was repaired primarily with Vicryl 4/0 in two layers.
 - Modified Graham patch was done with a gastrostomy
- Histopathology examination results revealed ulceration with necrosis of mucosa and dense acute inflammation extending into the muscularis propria with no malignant cells seen.
- Child was tolerating well and discharge home .



Figure 1.1: Initial abdominal xray of this patient which shows massive pneumoperitoneum

Discussion

- Gastric perforation is an uncommon entity in pediatric age group
- In this case, the risk factor for possible gastric ulcer would be due to her underlying condition (VACTERL) in which she has severe scoliosis requiring multiple spine operations, in which her last operation was 6 months ago. However, parents denied any use of NSAIDs or traditional medication.
- Pediatric gastric perforation usually occurs at the greater curvature, similar to our case.
- In a study by Wang et al, it is shown that in huge gastric perforation, surgical intervention chosen in most cases was primary repair with gastrostomy which is similar to our case.
- In children, gastric perforation is better to be repaired by simple closure than sleeve gastrectomy because of anticipation of feeding problems post gastrectomy

Conclusion

- There remains a paucity in data in regards to PGUs in children.
- PGU as a differential for children presenting with peritonism should be considered.
- Identification of perforation and management with adequate resuscitation and surgical intervention in children will save one's life.
- Giant perforated gastric ulcers in pediatric population can be repaired primarily with omental patch with satisfactory outcomes.

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Figure 1.2: Intraoperative picture of the gastric perforation at the anterior body of stomach measuring 8cmx4cm