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LETTER TO EDITOR (VIEWERS CHOICE)

SPONTANEOUS GASTRIC PERFORATION IN A PRETERM NEONATE- A POTENTIAL CATASTROPHE

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Gastric perforation in the neonatal age is increasingly uncommon with only a handful of cases being mentioned. The etiology is unclear and timely surgical management is the main factor determining the outcome.[1,2]

A 35 weeks' newborn weighing 2000 grams was admitted with distension of abdomen and intolerance to oral feed. X ray abdomen suggested large free gas shadow in the abdomen. Exploratory laparotomy was done with findings of a full thickness perforation over the greater curvature of the stomach. The perforation was suture repaired in double layers. Post operatively feed was started on day 2 after normal contrast study. The patient recovered with gradual tolerance to oral feed.

Over years, there main etiological factors for neonatal gastric perforation has been postulated. Trauma, ischemia and spontaneous.[1,3] Traumatic perforations are due to nasogastric or orogastric tubes, positive pressure ventilation or bag and mask resuscitation. Ischemic perforation is unclearly understood and hypothesized due to stress factors like sepsis, prematurity and hypoxia. However, in such cases the perforations are large with necrotic walls and similar necrotic patches are found over other regions of the bowel as well. Spontaneous perforations are very rare with a reported incidence of 1 in 2700 live births.[1,3,4] Theories suggested include congenital absence of muscular mucosa in the greater curvature of stomach, non communication of right and left gastroepiploic arteries causing localized ischemia leading to perforation at greater curvature, pneumatic dilatation of the stomach due to lack of coordination or immaturity of the vomiting mechanism in infants causing increase in intra gastric pressure during vomiting and congenital absence or lack of cajal cell in the gastric mucosa.[4,5]

Patients generally present with an acute abdomen necessitating urgent intervention. Preterm and septic patients are further prone to develop. The main presentations include distension of abdomen, intolerance to feed, vomiting and respiratory distress. Sepsis is almost always present and is the main cause of mortality in such cases.[4] The site of perforation is usually the fundus or the greater curvature of the stomach. Treatment is surgical and involves closure of the perforation in single or double layers. Omental patch may be applied.[2,4]

The present case deserves mention as gastric perforation in newborn, whether spontaneous or traumatic is a potential catastrophe and merits urgent neonatal intensive and surgical intervention. Most patients need proper fluid, electrolyte balance, ventilation and advanced supports. Degree of maturity, hypoxia, peritoneal contamination and duration of illness are risk factors for high mortality. Preterm babies are more prone to respiratory distress and septicemia and leading to very high mortality.[3,4,5] Pre and post operative care need skilled NICU staff and protocol based approach. Inspite of the best measures, mortality is high in the range of 58 percent. The key points to achieve a favorable outcome are excellent intensive care and an early surgical intervention.[4,5]

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