

CASE REPORT

PEPTIC ULCER PERFORATION IN A CHILD

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ABSTRACT:

- **Introduction:** peptic ulcer perforation in children is a rare entity. Very few cases have been reported. A case of peptic ulcer perforation in a 2-year-old child treated successfully is being reported.
- **Case Presentation:** A 2-year old, Indian Hindu male child presented with pain abdomen, vomiting and absolute constipation. There was no past history suggestive of peptic ulcer disease in the patient or the family. Child was irritable & dehydrated with clinical features of peritonitis. X-ray abdomen erect posture showed bilateral gas under diaphragm. He underwent exploratory laparotomy; a perforation found in the first part of duodenum and was repaired with live omental patch. The post-operative period was uneventful.
- **Conclusion:** The case presented, highlights an uncommon entity that is often not thought of. High level of suspicion will lead to early diagnosis & surgical intervention which will in turn reduce mortality.

INTRODUCTION: Peptic ulcer perforation is one of the most common surgical emergencies in adults. But in children it is a rare entity. Very few cases of perforated peptic ulcer in children have been reported and out of them very few have survived. Here we report a case of perforated duodenal ulcer in a toddler treated successfully.

CASE PRESENTATION: A 2-year old male child presented in the emergency with history of pain abdomen, vomiting and absolute constipation. There was no past history suggestive of peptic ulcer disease in the patient or the family.

On examination, the child was irritable & dehydrated. Tachycardia & tachypnea were present. The abdomen was distended & tender, with demonstrable amount of guarding and rebound tenderness, liver dullness was obliterated and bowel sounds were absent. On DRE fluid collection in POD was appreciated. X-ray abdomen erect posture showed bilateral gas under diaphragm.

The patient underwent exploratory laparotomy after resuscitation. Peritoneal cavity was filled with bilious fluid. A small perforation was found in the anterior wall of the first part of duodenum and was repaired by closure with live omental patch. Abdomen was closed after a

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thorough peritoneal lavage. A drain was placed in the Pouch of Douglas. The post-operative period was uneventful. Patient was discharged on the tenth postoperative day. He was then put on proton pump inhibitor to treat the acid peptic disease.

DISCUSSION :The annual incidence of primary duodenal ulcers is 5 cases per 100,000 children. Incidence of peptic ulcer perforation is 1.55 cases per year in pediatric age group (1). Its diagnosis is usually overlooked because of vague and variable symptoms and low index of suspicion (2). The factors contributing to mucosal inflammation and ulceration include endogenous factors, such as gastric acidity, acid-dependent pepsin, mucosal ischemia, ZE syndrome, sickle cell anemia, H. Pylori infection (3) and blood group O, as well as exogenous factors such as drugs (e.g. NSAIDs, Aspirin, Corticosteroids), corrosive chemicals, and emotional stress (4, 5). In patients with traumatic injuries, burns, sepsis, respiratory failure, or other critical systemic illnesses, many factors can contribute to erosions and ulcers, including mucosal ischemia, increased gastric acid and pepsin production, higher levels of endogenous catecholamines and steroids, and decreased prostaglandins and mucus production. Important mediators of mucosal inflammation and resultant ulceration include oxygen free radicals, lymphokines, and monokines (1).

Very few cases of perforated duodenal ulcer in children have been reported. Usually the diagnosis of peptic ulcer in children is made due to complications like perforation and hemorrhage (5-9). The diagnosis of perforated duodenal ulcer is often missed in the emergency setting due to low incidence of peptic ulcer in children and low index of suspicion. Children present late with shock (9) and carry high morbidity and mortality.

As in adults the treatment of perforated duodenal ulcer in a child is surgical. Maudar *et al* preferred Truncal Vagotomy & Gastrojejunostomy to simple closure as simple closure of the perforation in the 3 infants they studied resulted in fatalities due to fulminant septicemia (1). Simple closure of the perforation with Omental patch will suffice and should be the treatment of choice. It is a simple procedure as compared to Truncal Vagotomy and Gastrojejunostomy, and it requires lesser operating time and expertise. The acid peptic disease can be later treated with anti ulcer drugs (5-7).

CONCLUSION: The case presented highlights an uncommon entity that is often not thought of by the treating physician. Many cases of peptic ulcer perforation in children in developing countries like India die undiagnosed. High level of suspicion will lead to early diagnosis & surgical intervention which will in turn reduce mortality.

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