

Acute gastric dilatation following blunt abdominal trauma: Short Communication

I Wani, B Bhat, I Mir, T Saleem, M Rather, M Afsheen, S Qadri, I Bashir, S Mushtaq, M Nazir

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Abstract

We are reporting a rare case of acute gastric dilatation in a young female child. Many diseases lead to gastric dilatation. Gastric dilatation followed post blunt abdominal trauma. The presentation was as an acute abdomen. Patient was managed conservatively.

INTRODUCTION

Blunt trauma abdomen is a surgical emergency. A subtle to acute clinical manifestations occur. Single to multiple organ damage can be inflicted. Blunt abdominal trauma leading to acute gastric dilatation is a rare entity. This can be encountered in many conditions. It has rapid progression with high mortality if untreated.

CASE PRESENTATION

A 13 year old female presented to us after 3 hours history of fall suffering upper blunt abdominal trauma. She has upper abdominal pain, nausea and few episodes of non-copious vomiting. Pulse was 76/min., blood pressure 110/80 mm. Hg with respiratory rate being 22/min. Systemic examination was normal. Distension was noted in upper abdomen extending upto umbilicus downwards, right lumbar, left lumbar and umbilical area. Mild tenderness of upper abdomen was noted on palpation. Scratch auscultation was consistent with distended stomach. Percussion note being tympanitic. No succussion splash was auscultated. All routine blood and the urine examination were within normal limits. Serum electrolytes were normal. ECG had no abnormal T-wave changes. X-ray abdomen in upright position showed a dilated stomach 13 × 8 cm. (Fig.1)

Figure 1

Figure 1: showing dilated stomach



Focused abdominal sonography for trauma was normal. Patient being stable, no need of CT abdomen was required. Resuscitation was initiated with intravenous fluids and active nasogastric suction, with only 80 ml non-bilious aspirate. Serial repeat X-ray abdomen upright view showed decreasing dilatation of stomach. Orals were started 36 hours after admission. Patient was discharged on third day. Follow up was normal without any abnormal gastroduodenal symptoms.

DISCUSSION

Acute gastric dilatation was first described by SE Dupley in 1833. In surgical practice, this may present after a gastric or an abdominal operation, in cases of the trauma abdomen and with body casts, other causes being diabetic

gastroparesis, hypoxemia, large dose of anticholinergic drugs, pneumonia, sometimes it is idiopathic². Secondary third part duodenal obstruction due to superior mesenteric artery syndrome and the distended stomach have been proposed as mechanism for dilatation.^{1,4} Abdominal pain and vomiting being common clinical features, with more than 90% having copious vomiting^{3,4}. Abdominal distension is a pathognomic sign of acute gastric dilatation.⁵ Gaseous distension mainly accounting for dilatation with aspirate of 2-3 liters in most cases, although postmortem case has reported upto 8 liters of fluid in the stomach³. Patient may develop hypokalemia, metabolic alkalosis, and respiratory acidosis and death, if not treated promptly. There has been seen dramatic ECG T-wave changes with acute gastric distension which resolve with gastric decompression, mechanism for this remains unknown⁶. Sometimes ischemic necrosis of the stomach can occur due to acute gastric dilatation but being rare. Modality of the treatment being decompression of stomach. Operative intervention required in cases where ischemia of the stomach occur.

CONCLUSION

Acute gastric dilatation although rare following blunt

abdominal trauma needs close observation to look for any ischemic necrosis of the stomach to develop and the patient can be managed conservatively most of the times. Acute gastric atony following blunt trauma could be proposed as cause. Active gastric suction and rest to the stomach are basic principles for management.

CORRESPONDENCE TO

Imtiaz Wani Post Graduate Scholar, Amira Kadal, Srinagar
Cell No. 9419904864 Email: imtazwani@yahoo.com

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Author Information

Imtiaz Wani

Post Graduate, Postgraduate Department of Surgery, S.M.H.S Hospital

Bilal Bhat

House Surgeon, Postgraduate Department of Surgery, S.M.H.S Hospital /SKIMS

Imran Mir

Post Graduate, Postgraduate Department of Surgery, S.M.H.S Hospital /SKIMS

Tahir Saleem

Registrar, Postgraduate Department of Surgery, S.M.H.S Hospital

Mudasir Rather

Registrar, Postgraduate Department of Surgery, S.M.H.S Hospital

Misbah Afsheen

Post Graduate, Postgraduate Department of Surgery, S.M.H.S Hospital

Sadat QadrI

Registrar, Postgraduate Department of Anaesthesia, S.M.H.S Hospital

Idrees Bashir

Post Graduate, Postgraduate Department of Surgery, S.M.H.S Hospital

Shaista Mushtaq

House Surgeon, Postgraduate Department of Surgery, S.M.H.S Hospital

Mir Nazir

Consultant, Postgraduate Department of Surgery, S.M.H.S Hospital