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Performed Laparoscopic Surgery For Gastric Perforation: Case Report

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ABSTRACT

Introduction: Perforated peptic ulcer (PPU) is a life-threatening disease with historically reported high morbidity and mortality rates. The epidemiology of perforated peptic ulcer was appear to be stable in recent. The laparoscopy as primary operation has focused on safety to tread PPU.

Case: A 75 years old man presented to our emergency center with generalized abdominal pain since 2 days before admision. Generalize abdominal pain develop suddenly and severe. Patient has history taking NSAID for 7 years to treat pain in the knee joint. He was complaining of chronic and recurrent upper abdominal for 5 year and relieved by food or antacids. He is smoker. After initial resuscitation by adequate administration intravenous lines of fluid and nasogastric tube, Patient underwent a laparocopik surgery, we perform prymari suture and a Graham patch. We followed administration antibiotic and proton pump inhibitor. We perform the suturing to close the perforation site before peritoneal irrigation to avoid the accumulation of infected fluid and other debris. Once irrigation was complete, a large volume of omentum was reinforced above the primary suture site.

Conclusion: We successfully managed perforated peptic ulcers with minimally invasive approach. Adequate resuscitation, hypotension in no longer be a significant prognostic indicator. In experienced hand laparoscopic is probably the most appropriate approach for perforated peptic ulcer. Because no upper abdominal incision is made, there I decreased post operative pain and decrease administration of post operative pain medication. The patient rapidly recovers with less complication.

Keywords

Laparoscopic surgery, Peptic ulcers, NSAID

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INTRODUCTION

Perforated peptic ulcer (PPU) is a life threatening disease with historically reported high morbidity and mortality rates. The epidemiology of perforated peptic ulcer was appear to be stable in recent . the laparoscopy as primary operation has focused on safety to tread PPU. Comorbidity was difined as any concomitant disease including cardiovascular disease, pulmonary diease, autoimmune disorders, and know or previous cancer desease In patient history. The incidence increased 10 –fold and the mortality more than 50-fold for patient over 60 years compare to younger ages. The boey score have been used to stratify the risk of the patien and perediction the outcome of patient with PPU. The most etiology factors include use of NSAID, Steroid, Smoking, H. Pylori and diet high in salt whitch all of factor affect acid secretion in gastric mucosa.

European Association of Endoscopic Surgery consensus statement supported laparoscopy for abdominal emergencies including for perforation PUD. The outcome of patients with a perforated ulcer depends on the following: (1) Delay from initial evaluation to treatment (>24 h): recent data suggest increasing delay until surgical treatment, in part because of more extensive diagnostic work-up; (2) Site of perforation: gastric

perforations are associated with a poorer prognosis; (3) Patient's age: elderly patients, who often have associated comorbid conditions, have a worse outcome; (4) Presence of hypotension at initial evaluation (systolic blood pressure <100 mm Hg).

Ulcer perforations occur mostly in stomach (60%) or duodenum (40%). Important causes for gastrointestinal ulcers: (1) Infection : Helicobacter pylori, HSV, CMV; (2) Drug exposure : NSAIDs, Aspirin, Corticosteroids, Bisphosphonates, Clopidogrel, Potassium chloride, Chemotherapy; (3) Hormonal or mediator-induced : Gastrinoma (Zollinger-Ellison syndrome), Systemic mastocytosis, Antral G cell hyperfunction; (4) Radiation therapy; (5) Infiltrating disease : Sarcoidosis ,Crohn's disease; and (6) Ulcer associated with systemic disease : Stress (ICU) ulcers, Organ transplantation. Clinical phases of perforated ulcer: (1) Phase 1 0–2 h after onset, Sudden severe abdominal pain; (2) Phase 2 2–12 h after onset, Less pain than in phase 1; (3) Phase 3 >12 h after onset, Increasing abdominal extension. Base on PULP score patients could be divided into low-risk patients, with less than 25% risk of mortality (a score of < 7 points), and high-risk patients, with more than 25% risk of mortality (a score of > 7 points).

CASE

A 75 years old man presented to our emergency center with generalized abdominal pain since 2 days before admission. Generalize abdominal pain develop suddenly and severe. Patient has history taking NSAID for 7 years to treat pain in the knee joint. He was complaining of chronic and recurrent upper abdominal for 5 year and relieved by food or antacids. He is smoker.

Figure 1. Free air under the diaphragm found on an upright chest X-ray

Physical examination :

- General Appearance : Severely illness
- Consciousness : GCS 15
- Blood Pressure : 90/60 mmHg
- Heart Rate : 120x/mnt
- Respiratory rate : 30x/mnt

Abdominal region

- Inspection : Distended positive
- Auscultation : Bowel sound was decrease
- Palpation : Muscle rigidity positive , tenderness positive, rebound tenderness positive
- Percution : liver dullness disapears

Laboratory :

- Hb :15,4 gr/dl
- Leukocite : 3.700/mm3
- Ht : 51%

- Platelete : 232.000/mm3
- Blood randome glucose : 75 mg/dl
- PT/APTT :63,7/15,8 sec
- Ur/Cr : 15,9/5,8 mg/dl
- SGOT : 18 u/l
- SGPT : 13 u/l
- Sodium : 130 mmol/L
- Potassium : 6,2 mmol/L
- PULP Score : 11

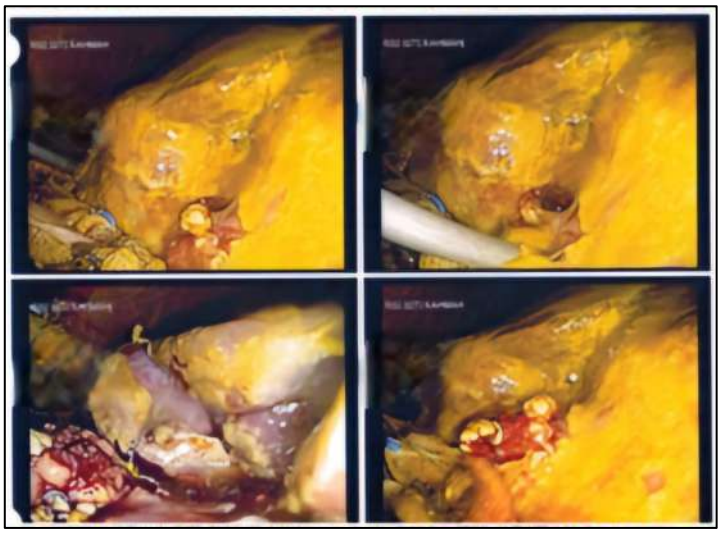

Figure 2. Post-operative

DISCUSSION

After initial resuscitation by adequate administration intravenous lines of fluid and nasogastric tube, patient underwent a laparocopik surgery, we perform primary suture and a Graham patch. We followed administration antibiotic and proton pump inhibitor. Patient was placed in thereverse Trendelenburg position. A carbon dioxide pneumoperitoneum was formed from the umbilical port, and pressure was maintained between 12 and 15 mmHg. Two 12 mm trocars and one 5 mm trocar were positioned as described in fig.1. Intraabdominal cavity we found severe contamination with gastric content and a perforation at antrum. We perform the suturing to close the perforation site before peritoneal irrigation to avoid the accumulation of infected fluid and other debris. Once irrigation was complete, a large volume of omentum was reinforced above the primary suture site.

CONCLUSION

The epidemiology of peptic ulcer disease has changed dramatically. The medical management of symptomatic peptic ulcer disease has improved. We successfully managed perforated peptic ulcers with minimally invasive approach. Adequate resuscitation, hypotension in no longer be a significant prognostic indicator. In experienced hand laparoscopic is probably the most appropriate approach for perforated peptic ulcer. Because no upper abdominal incision is made, there I decreased post operative pain and decrease administration of post operative pain medication. The patient rapidly recovers with less complication.

DECLARATIONS

The research has received approval from Faculty of Medicine, Universitas Sumatera Utara of Research and Ethics Committee. Participants were informed about this report.

CONSENT FOR PUBLICATION

The Authors agree to publication in Journal of Society Medicine.

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COMPETING INTERESTS

The authors declare that there is no conflict of interest in this report.

AUTHORS' CONTRIBUTIONS

All authors are responsible for conceptualization, manuscript preparation, manuscript editing, and manuscript assurance.

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