CASE REPORT

Perforation of Gallbladder after Admission In a Young Male Patient

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ABSTRACT

Gallbladder perforation is a rare but life threatening condition, and difficult to diagnose. A 30-year old male patient, with no known co-morbid, presented in emergency room with sudden onset of pain in the right hypochondrium. On examination there was tenderness in the right hypochondrium and right lumbar regions. Ultrasound abdomen showed thick-walled gallbladder containing multiple calculi and pericholecystic fluid suggestive of acute calculous cholecystitis. Patient was put on conservative treatment. After 24 hours patient deteriorated clinically. Urgent ultrasound showed collection in Morrison's pouch. Patient was operated and perforation at fundus of gallbladder found. Cholecystectomy was performed. Patient recovered smoothly and discharged home in good condition.

Key words *Gallbladder perforation, Acute cholecystitis, Biliary peritonitis.*

INTRODUCTION:

Gall bladder perforation, biliary peritonitis, cholecystoenteric fistula, gall stone ileus, empyema and emphysematous cholecystitis are serious complications of acute calculous cholecystitis, associated with increased morbidity and mortality.[1,2] Gallbladder perforation can also occur in acalculous cholecystitis but at lower rate.[3] We are reporting a case of young man with perforation of gall bladder during the conservative management.

CASE REPORT:

A 30 year old male with no known co-morbid presented to emergency department with the complaint of pain in right hypochondrium for two days. Pain was sudden in onset, severe, continuous, radiating to epigastric and right lumbar regions, aggravated by meals and movement, not completely relieved by medications, associated with fever and nausea. Patient had multiple episodes of severe colicky right hypochondrial pain in last 6-months (twice in a month). Past surgical and medical history was insignificant. On examination patient was anxious. His vitals were stable except pulse rate of 120 beats per minute. There was decreased air entry in right lung base. His abdomen was tense and tender in right lumbar and right hypochondrium. No visceromegally was noted. Gut sounds were audible.

His investigations showed hemoglobin of 16.5 gm/dl, total leucocyte count 11400 (10^9/L) with neutrophils 85%. Blood urea was 7mg/dl, serum creatinine 0.9mg/dl and electrolytes within normal range. LFTs showed total bilirubin 1.4mg% with direct bilirubin 0.8mg%, SGPT 156 IU/L, alkaline phosphatase 117 IU/L. X-ray abdomen showed was reported as normal. Ultrasound abdomen revealed thick walled gallbladder containing multiple calculi and pericholecystic fluid.

Patient was admitted in HDU and kept on nothing per oral status regular vitals and input/output charting, placement of nasogastric tube and Foley catheter, administration of intravenous fluids, proton pump inhibitors, analgesics, metoclopromide and ceftriaxone. Next day patient deteriorated clinically, he complained of increased pain, became pyrexic, tachycardiac and tachypnoiec. Abdomen became tense and tender all over. Board like rigidity was present. Urgent ultrasound abdomen showed collection in Morrison's pouch. Decision of exploratory laparotomy was made. Intraoperative findings included greenish colored fluid in Morrison's pouch and right paracolic gutter. A 1 cm × 1 cm perforation at fundus of gallbladder with necrotic, thinned out and ragged edges. Anatomy of the Callot's triangle was clear. Cystic duct and artery were ligated and divided and gallbladder removed. Patient improved following surgery and discharged on 7th postoperative day. Histopathology report showed acute on chronic inflammation of gallbladder with pathological

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perforation at fundus.

DISCUSSION:

Gallbladder perforations can be iatrogenic, traumatic and idiopathic. Most of the patients present with the history suggestive of gallbladder disease.[4] Fundus is the most common site of perforation due to poor vascular supply. Niemeier in 1934 classified free gallbladder perforation into three types; Type 1 (acute) associated with generalized biliary peritonitis; type 2 (subacute) consists of localization of fluid at the site of perforation, pericholecystic abscess and localized peritonitis while type 3 (chronic) is associated with formation of internal or external fistulae.[5]

Recent studies have cited higher rates of type 2 perforation.[6] In contrast our patient had a type 1 perforation. One study reported the mean age of patients with gallbladder perforation as 69 year with female to male ratio of 3:2.[7] Our patient was thirty year old male. Perforation usually occurred in most of these patients within 72 hours. Diagnosis of gallbladder perforation is difficult on clinical grounds. Ultrasound is a good diagnostic tool and same was used in index case.[8] One study showed CT appearance of gallbladder perforation compared with operative findings and found a high accuracy of CT scan in diagnosing perforated gallbladder.[9] Early surgical intervention is important in the management of gallbladder perforation because of high morbidity and mortality with delayed presentation. A high morbidity and mortality rates of 57.7% and 9.5% are reported.[10] Our patient made uneventfulr recovery. Early diagnosis of gallbladder perforation and immediate surgical intervention results in better outcome.

REFERENCES:

1. Tskhai VF, Brazhnikova NA, Merzlikin NV, Slesarenko MV. [Internal biliary fistulas as a complication of cholelithiasis]. Vestn Khir Im I I Grek. 2012;171:43-8.

2. Zingales F, Pizzolato E, Menegazzo M, Da Re C, Bardini R. Gallstone ileus of the sigmoid colon: a rare complication of cholelithiasis. Updates Surg. 2011;63:219-21.

3. Sharma RG, Goyal S, Mittal A, Singhal K. Spontaneous perforation of acalculous gallblader: a case report. Indian J Surg. 2011;73:316-7.

4. Gunasekaran G, Naik D, Gupta A, Bhandari V, Kuppusamy M, Kumar G, et al. Gallbladder perforation: a single center experience of 32 cases. Korean J Hepatobiliary Pancreat Surg. 2015;19:6-10.

5. Derici H, Kara C, Bozdag AD, Nazli O, Tansug T, Akca E. Diagnosis and treatment of gallbladder perforation. World J Gastroenterol. 2006;12:7832-6.

6. Gobel T, Kubitz R, Blondin D, Haussinger D. Intrahepatic type II gall bladder perforation by a gall stone in a CAPD patient. Eur J Med Res. 2011;16:213-6.

7. Namikawa T, Kobayashi M, Okabayashi T, Okamoto K, Akimori T, Sugimoto T, et al. Clinicopathological analysis of idiopathic perforation of the gallbladder. Surg Today. 2007;37:633-7.

8. Sun Y, Song W, Hou Q, Li J, Guo H. Gallbladder perforation: a rare complication of postoperative chemotherapy of gastric cancer. World J Surg Oncol. 2015;13:245.

9. Morris BS, Balpande PR, Morani AC, Chaudhary RK, Maheshwari M, Raut AA. The CT appearances of gallbladder perforation. Br J Radiol. 2007;80:898-901.

10. Ausania F, Guzman Suarez S, Alvarez Garcia H, Senra del Rio P, Casal Nunez E. Gallbladder perforation: morbidity, mortality and preoperative risk prediction. Surg Endosc. 2015;29:955-60.