OPEN ACCESS

GAVIN PUBLISHERS

Emergency Medicine Investigations

Gokce AH and Gulaydin N. Emerg Med Inves 8: 1091.

Case Report

DOI: 10.29011/2475-5605.001091.

A Complication Associated with Gallstones Spilled into the Abdominal Cavity During Laparoscopic Cholecystectomy: Ileus

Aylin Hande Gokce*, Nihat Gulaydin

Istanbul Atlas Univercity, General Surgery, Barbaros mahallesi Ahmet Yesevi caddesi, Bağcılar, İstanbul, Turkey

***Corresponding author:** Aylin Hande Gokce, Istanbul Atlas Univercity, General Surgery, Barbaros mahallesi Ahmet Yesevi caddesi No: 149 34203, Bağcılar, İstanbul, Turkey. Tel: +90-5052502079; Email: ahgokce79@hotmail.com

Citation: Gokce AH and Gulaydin N (2019) A Complication Associated with Gallstones Spilled into the Abdominal Cavity During Laparoscopic Cholecystectomy: Ileus. Emerg Med Inves 8: 1091. DOI: 10.29011/2475-5605.001091.

Received Date: 07 May, 2019; **Accepted Date:** 17 June, 2019; **Published Date:** 25 June, 2019

Introductıon

Foreign bodies forgotten in the abdominal cavity are rare. Gauze and towels are the most commonly retained surgical foreign bodies and rarely, surgical instruments may be inadvertently left in the abdomen [1]. Complications such as abscesses; ileus or fistulas may be the first manifestations of foreign bodies inadvertently left in the abdominal cavity [2].

Gallbladder perforation and gallstone spillage into the abdominal cavity are among common complications of laparoscopic cholecystectomy procedures [3]. Gallbladder perforation may occur in 30% of laparoscopic cholecystectomy procedures [4]. However, 16 to 50% of spilled gallstones cannot be retrieved [4]. In most instances, gallstones left in the abdominal cavity remain silent [5]. Mesenteric cysts are usually asymptomatic and diagnosed incidentally. If symptomatic, the most common symptoms include abdominal pain, palpable masses in the abdomen, nausea and vomiting. Very rarely, mesenteric cysts may complicate with perforation, peritonitis or ileus [6,7].

Herein, we present a case of foreign body reaction to a gallstone dropped into the abdominal cavity during prior laparoscopic gallbladder surgery in a patient who presented with signs and symptoms of ileus and underwent surgery as a preliminary diagnosis of mesenteric cyst with volvulus was made based preoperative workup.

Case Presentatıon

A 73-year-old female patient who presented with nausea, vomiting and abdominal pain was seen at the internal emergency room of the department of Internal Medicine and underwent routine blood tests and whole abdominal ultrasound; abdominal X-rays were taken in a standing position. Whole abdominal ultrasound revealed an intraperitoneal mass, multiple enlarged lymph nodes in the mesenteric adipose tissue on the right side of the umbilicus, in the patient who had a history of a laparoscopic cholecystectomy procedure 7 years ago. X-rays taken in a standing position revealed small bowel air-fluid levels. Blood tests revealed a leukocyte count of 14.500 /mm^3, a CRP concentration of 46 mg/L, a hemoglobin concentration of 7.4 g/dl and a hematocrit value of 25.4%. However, as the hemoglobin concentration measured 2 months ago was 10.2 g/dl in the patient's medical records, a preliminary diagnosis of gastrointestinal bleeding was made and the patient was admitted to the internal medicine clinic. A consultation was requested from the department of gastroenterology under emergency conditions and the patient underwent an esophagogastroscopy procedure on the same day. Esophagogastroscopy did not reveal any active bleeding, while intragastric bile content was more than one liter. 2 units of red cell concentrate were transfused to the patient. A whole abdominal computed tomography scan was done under emergency conditions and the CT scan revealed extremely dilated upper jejunal segments, fluid-air levels, an ileus appearance along with findings secondary to ileus including thickening at the root of mesentery around the upper jejunal segments and reactive free fluid around intestinal loops with an average depth of 2 cm. A cystic mass of mesentery origin was detected at the level right middle quadrant, at the location where the bowel became obstructed and the caliber of the jejunum became thinner. The cystic mass was 49x57x58 mm in dimensions; it contained fat and had regular contours. At this level, a volvulus of a jejunal loop was detected. Although a certain amount of stool and gas was observed in the colonic lumen, descending colon, sigmoid colon and rectum appeared to be empty (Image 1).

Image 1: Abdominal CT scan revealing the mass and the volvulus on the right side.

The assessment of previous patient records revealed that the patient had presented with abdominal pain 6 months ago and she had undergone an abdominal ultrasound at that time. The abdominal ultrasound had revealed a thin-walled, hyperechoic mass, 64x59x58 mm in dimensions, on the left side, at the level of the umbilicus and a CT had been performed. Although abdominal CT scans had provided further support to ultrasound findings and she had been offered surgery, she had refused surgical removal of the mass lesion (Image 2).

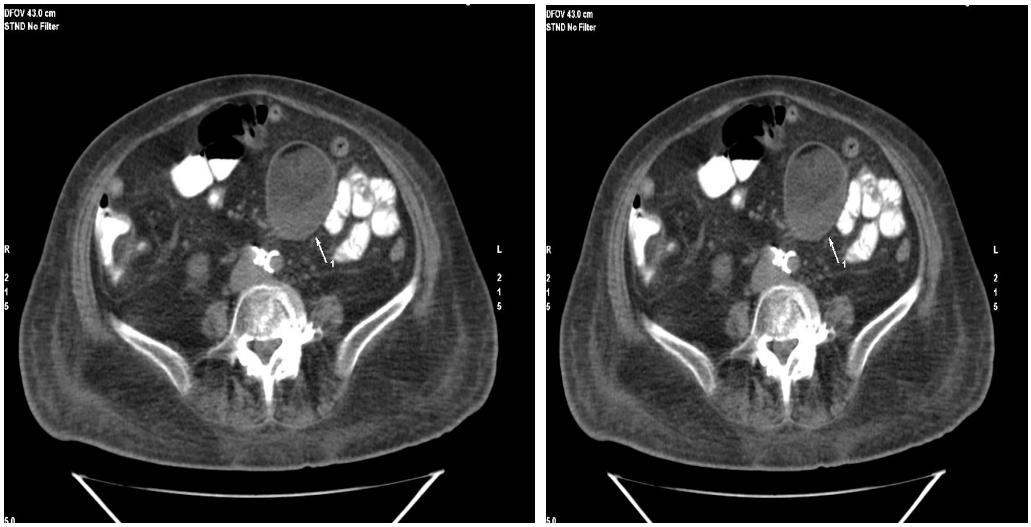

Image 2: Abdominal CT performed 6 months ago, showing that the mass lesion was initially located on the left side

The patient underwent surgery under emergency conditions as the mass was considered to have crossed from the left side to the right side as a result of a volvulus and caused ileal compression and obstruction. The surgical procedure was initiated and completed as a laparoscopic procedure. During the procedure, an ileal loop was found to be partly dilated and partly thinned. The mass lesion was considered to be originated from the mesentery and the mass lesion and a band were found to cause ileus by compressing the jejunum (Image 3).

Image 3: Peroperative appearance of the mass lesion.

Therefore, the band was incised and the vessels originating from the mesentery root were clipped before the removal of the band. The mass was placed in an endobag and removed through an umbilical incision. At this stage, the content of the cyst was suctioned and a culture specimen was submitted to the laboratory as the cyst content was white and viscous. The cyst fluid culture showed no growth. Water and fluid food were initiated on the postoperative day 1 and the patient was discharged from the hospital as cured on the postoperative day 3. Histological examination of the surgical specimen was reported as a foreign body –related mass.

Discussion

The introduction of laparoscopic cholecystectomy as the treatment of choice in most of patients with acute or chronic cholecystitis has resulted an increased prevalence of gallstone spillage in the abdominal cavity during surgery. Gallstones usually spill into the abdominal cavity during gallbladder dissection or during the extraction of the gallbladder through the abdominal wall [3,8]. Foreign bodies usually induce an aseptic fibrinous inflammatory reaction and may be encircled by surrounding organs. In such cases, foreign bodies may remain silent or symptoms may be delayed [9]. In our patient, ileus symptoms occurred 7 years after the laparoscopic cholecystectomy procedure.

Ultrasound or abdominal computed tomography scans may be used to diagnose mesenteric cysts. Abdominal CT scans may also reveal the origin of mesenteric cysts. The definitive treatment of mesenteric cysts is surgery [10]. In our patient, the diagnosis was made based on ultrasound and computed tomography scans. The mass lesion which had been previously detected in the left side of the abdominal cavity on the ultrasound scans had crossed to the right side leading to a volvulus. In our patient the cyst was misdiagnosed as a mesenteric cyst since it was originating from the ileum as shown on CT images and a decision of emergency surgery was made as the cyst was also the cause of intestinal obstruction. The examination of the surgical specimen obtained during laparoscopic surgery showed that the cyst was caused by a foreign body.

In a case presented by Zamora, et al. peritoneal granulomas were detected during Cesarean section 2 year after laparoscopic surgery. During the procedure, these granulomas were considered to be carcinoma metastases; however further assessment revealed that these lesions were intraperitoneal granulomas caused by gallstones [5]. In our patient the mass which was considered to be a mesenteric cyst, was found to be a cyst caused by gallstone spillage during prior surgery.

In conclusion; we aim at emphasizing that past medical history obtained from a patient at emergency admission should be as detailed as possible. We should keep in mind that the causes of mechanical bowel obstructions in patients who have undergone open/laparoscopic surgery may not be limited to adhesions or masses and foreign bodies are also among the underlying causes of ileus. We aimed to emphasize that if a gallstone spillage occurs during cholecystectomy procedures complicated by gallbladder perforation, spilled gallstones should be retrieved, if possible and serious complications may result from spilled gallstones when their retrieval is not possible.

Disclosure: No competing financial interests exist, State none. This research didn't receive grants from any funding agency in the public, commercial or not-for-profit sectors There aren't any conflicts of interest between any one. Approval of the case for the article

References

1. Gurer A, Eser M, Kıyak G, Demirbas B (2011) A case with an accidentally-left reverdin malleable after an abdominal surgery. Turkish journal of Surgery 27: 120-122.
2. Gawande A, Studdert DM, Orav E, Brennan T, Zinner M (2003) Risk factors for retained instruments and sponges after surgery N Engl J Med 348: 229-235.
3. Binagi S, Keune J, Awad M (2015) Immediate Postoperative Pain: An Atypical Presentation of Dropped Gallstones after Laparoscopic Cholecystectomy. Case Reports in Surgery: 1-3.
4. Peravali R, Harris A (2013) Laparoscopic management of chronic abscess due to spilled gallstones. Journal of the Society of Laparoendoscopic Surgeons 17: 657-660.
5. David A, Zamora S, Luis E, Herrera B, MileoR, et al. (2017) Intraperitoneal Granulomas Unexpectedly Found during a Cesarean Delivery: A Late Complication of Dropped Gallstones. Case Rep Pathol 4873273: 1-3.
6. Sudiono DR, Ponten JB, Zijta FM (2016) Acute Abdominal Pain Caused by an Infected Mesenteric Cyst in 24-Year-Old Female. Case Rep Radiol: 8437832.
7. Aguirre S, Almagro M, Carlos A, Romero A, Romero S, G, et al. (2019) Giant mesenteric cyst from the small bowel mesentery in a young adult patient . Journal of Surgical Case Reports 1: 1-4.

8. Demirbas B, Gulluoglu B.M, Aktan A.O (2015) Retained abdominal gallstones after laparoscopic cholecystectomy: a systematic review. Surgical Laparoscopy Endoscopy & Percutaneous Techniques 25: 97-99.

9. Cheng T, Chou A.S, Jeng C, Chang P, Lee C (2007) Computed Tomography Findings of Gossypiboma J Chin Med Assoc 70: 565-569.

10. Giannos A, Stavrou S, Goumalatsos N, Fragkoulidis G, Chra E, et al. (2017) Mesenteric cysts and mesenteric venous thrombosis leading to intestinal necrosis in pregnancy managed with laparotomy: a case report and review of the literatüre. Journal of Medical Case Reports 11: 184.