
CASE REPORT

ABDOMINAL WALL COMPLICATIONS OF MISSED GALL STONES IN LAPAROSCOPIC CHOLECYSTECTOMY.

Muhammad Zubair¹, Lubna Habib², Masoom Mirza²

ABSTRACT

Port site complications due to lost gall stones in anterior abdominal wall are recently reported complications of laparoscopic cholecystectomy. Two cases are hereby reported who had undergone laparoscopic cholecystectomy and later on one presented with discharging sinus and the other with anterior abdominal wall mass. On exploration both the problems were found related to stones lodged in the anterior abdominal wall.

Key words: Laparoscopy, Cholecystectomy, Missed stones, Port site, sinus, Abdominal wall

INTRODUCTION

Laparoscopic surgery revolutionized the treatment of symptomatic cholelithiasis and gained acceptance world wide over a very short period of time. Port site complications are newer procedure related events and require notification to update the literature and design protocols to prevent these complications.^{1,2} Many of these complications such as abscess formation, recurrent sinuses and abdominal wall mass are the result of stone slipped in abdominal wall during extraction of gall bladder.^{1,3-5} Here are two reported cases who presented with the consequences of missed stones lodged in the anterior abdominal wall.

CASE REPORT

Case 1

A 32 years old woman presented in out patient department with a discharging sinus at the site of epigastric port. She had elective laparoscopic cholecystectomy two and half months ago for chronic calculus cholecystitis in another hospital. The epigastric wound got infected in the

1 Senior Registrar, Department of Surgery, Dow University of Health Sciences, Karachi, Pakistan.

2 Assistant Professor, Department of Surgery, Hamdard College of Medicine & Dentistry, Karachi, Pakistan.

Correspondence: Dr. Muhammad Zubair, Senior Registrar, Department of Surgery, Dow University of Health Sciences, Karachi, Pakistan.

E-mail: drmuzubair@hotmail.com

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immediate post operative period. It was treated by several courses of antibiotics but with partial response. On examination, there was local induration, erythema and seropurulent discharge from the sinus at epigastric port site. Systemic signs of sepsis were absent. Ultrasound scan was normal. Sinus was explored under general anaesthesia. The sinus was limited to abdominal wall. At the depth of sinus two small, dark brown, faceted gall stones were retrieved. Wound was irrigated thoroughly and left open. It healed in three weeks time.

Case 2

A 45 years old woman was admitted with pain and lump in epigastrium for three months. She had laparoscopic cholecystectomy for acute calculus cholecystitis four months ago. There was no history of fever or vomiting. On examination, there was an ill defined, non tender lump just below the epigastric port site scar. On ultrasound scan there was a mass of mixed echogenicity in upper abdomen. Contrast enhanced computed tomography of the upper abdomen showed a 5 x 3 cms, soft tissue mass adherent to the anterior abdominal wall in midline with low attenuation in the centre (Figures 1 and 2). On exploration under general anaesthesia there was a necrotic mass attached to and deep to the linea alba. A single gall stone was retrieved from this mass, area was irrigated and primarily closed with suction drain. Postoperative recovery was unremarkable.

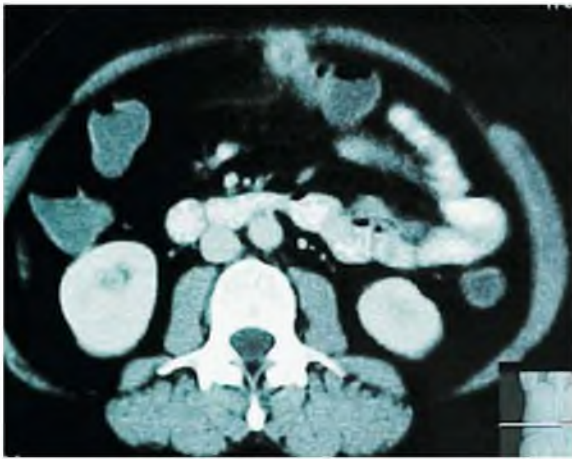


Figure 1: CT scan of the second patient showing mass adherent to the anterior abdominal wall in midline.



Figure 2: Sagittal view of the CT scan of second patient showing mass adherent to the anterior abdominal wall

DISCUSSION

Laparoscopic cholecystectomy has become the standard treatment for symptomatic cholelithiasis since its introduction in 1987 by the French surgeon Phillippe Mouret.⁶ Its advantages over conventional open cholecystectomy have been discussed extensively. This technique has introduced newer complications not known in era of open surgery for example complications of creating pneumoperitonium like vascular and bowel injuries and port site related complications including port site hernias.^{1,2,6} Perforation of gall bladder has been observed and experienced as the most common intraoperative complication with estimated

frequency of 32% and spillage of stone around 6%.^{1-5,7,8} Perforation can occur during retraction and dissection of gall bladder from the liver bed especially in acute cholecystitis or during its forceful extraction through port-site.^{1-3,8} Up till now gall bladder perforation is considered as a benign event and many surgeons leave these stones because of limited access or difficulty,³ but follow up with this technique complications of retained stones have been described in isolated case reports or small case series. These include intra abdominal abscesses, cutaneous fistulae, gastric outlet obstruction, small bowel obstruction, erosion into sigmoid colon and gall stones in femoral canal mimicking incarcerated hernia.³ The estimated incidence of these complications is low, stated to be about 0.6 to 0.8%.⁸ Most of these present between 12 days to 12 months after surgery but complication is also reported after 20 years of original operation.^{6,7}

Perforation of gall bladder during extraction may result in spillage of stones in the anterior abdominal wall which presents as abscess formation, chronic sinus and abdominal wall mass mimicking a neoplasm.^{1-5,9} As compared to intraperitoneal spillage these complications have not been reported frequently. Presentation of the first case of this report was similar to those reported by Pavlidis, Bour and Chowbey from India.^{4,5} All those cases presented with sinus formation and ultimately required second operative procedure for healing. The second patient presented with a vague lump in anterior abdominal wall. Similar presentation is described by Donna nine years after laparoscopic cholecystectomy which was initially interpreted as desmoid tumor.¹ The complications caused by these unretrieved stones usually do not respond to conservative measures and require some operative procedure for recovery.^{3,8}

Different techniques have been described in literature to minimize the risk of spillage of gallstones as applications of clips, endoloops, sutures and placement of gall bladder in endoscopic bag immediately upon completion of dissection.^{2,3,6} If spillage does occur, these slipped stones should be retrieved but up till now spillage alone is not considered as indication for conversion.^{3,8,10} It is suggested that if spillage occurs it should be properly recorded and patient counselled to avoid clinical misinterpretation of neoplasm and waste of health resources.¹ We recommend that some form of endobag should always be used to deliver the gall bladder to prevent this complication.

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