
Correspondence to: Dr Jayshree, Assistant Professor. Fax: (80) 65 60723
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Recurrent abscess at site of laparoscopic cholecystectomy port due to spilled gallstones

SANGI REDDY NARREDDY, SANDEEP GULERIA, SANDEEP AGARWAL, CHANDRA MURTHY SVR, SANJOY MANDAL

Department of Surgery, All India Institute of Medical Sciences, New Delhi 110 029

Spillage of gallstones is common during laparoscopic cholecystectomy and may lead to intra-abdominal abscesses and sinus formation. We describe two patients with recurrent abscess at the site of epigastric port due to presence of large spilled stone in the parietes following laparoscopic cholecystectomy. Removal of the stone led to resolution of symptoms. [Indian J Gastroenterol 2001;20:151-161]

Key words: Gall bladder

Gall bladder tears and spillage of stones during laparoscopic cholecystectomy are not rare, with reported frequency of 5.7% to 36%.12 Rarely spilled stones can cause serious complications like intra-abdominal abscess and adhesion formation.

Case 1: A 30-year-old woman presented with recurrent pus discharge from the epigastric port site, following uncomplicated laparoscopic cholecystectomy for symptomatic cholelithiasis 18 months ago. The discharge was initially managed by laying open the wound and daily dressings; the wound healed well. Six weeks later, she developed an abscess at the site, which started discharging pus. This was explored under general anesthesia but no cause was found. Recurrent pus discharge had continued since then.

On examination, there was a pus-discharging sinus, with surrounding induration and mild erythema, in the epigastric region. Blood chemistry and hemogram were normal. Ultrasonography revealed no abnormality. Biopsy from the sinus site was negative for tuberculosis and fungal infection. On exploration, a large stone was found just above the rectus sheath. The stone was removed and sinus excised; the wound healed well and she is asymptomatic 6 months later.

Case 2: A 26-year-old man underwent uneventful four-port laparoscopic cholecystectomy in our hospital. The gall bladder had large stones, which were removed after opening the neck, using a stone-holding forceps. The postoperative period was uneventful. Four weeks later, he presented with painful swelling and pus discharge from the epigastric port site. The wound was explored and vinylic sutures used for closure of the fascia were removed. Biopsy from the wound revealed chronic inflammation. The sinus healed well with daily dressings but recurred repeatedly. Thirteen months later, a large stone was expelled spontaneously through the sinus and his symptoms resolved completely.

Lacerations due to grasper traction and electrocautery dissection are common mechanisms of gall bladder tear. Slipping of stones may also occur during gall bladder extraction in difficult cases like those with thin-walled gall bladder packed with multiple stones, or large stones that need to be crushed before removal. A mini-laparotomy or extension of the port site incision with introduction of Hassan's cannula has been advocated to avoid spillage of stones.

In cases where the gall bladder is extracted through the umbilical port, spillage of stones may go unnoticed, since it is not extracted under vision. Extraction through the epigastric site is under vision, allowing detection of spillage; also, the removal of spilled stones is easier as they are spilled over the liver or on the omentum rather than in-between the bowel loops as happens in umbilical port extraction. In our cases there was no recorded history of intra-operative tear or spillage of stones during extraction. In both cases the gall bladder was removed through the epigastric port, where it may be out of vision when it is entirely within the parietes.

Careful traction and dissection to avoid gall bladder tears, closure of a tear with an Endo loop, use of an extraction device to prevent spillage of stones during extraction are all recommended. Palpation of the parietes for peritoneal fluid and flushing the port site with saline to remove spilled stones may also be useful.

There is general agreement that all gallstones spilled during laparoscopic cholecystectomy should be removed.

References