World Journal of Minimal Access Surgery

Case Report

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Implanted gallstones at port site

Syed Asad Ali[1], Faisal Ghani Siddiqui[1]

[1]Department of Surgery, Liaquat University of Medical & Health Sciences, Jamshoro, Sindh, Pakistan

Abstract: A rare complication of port-site infection due to implanted stones resulting in discharging sinus following laparoscopic cholecystectomy is reported. In this case, a 5mm supra umbilical port-site was the culprit, four fingers remote from the umbilical port from where the gallbladder was retrieved. Thus, meticulous gallbladder dissection and retrieval of gallbladder specimen in an endo bag is recommended to prevent such rare complication.

Keywords: Implanted gall stones, port-site discharging sinus, laparoscopy, cholecystectomy.

Introduction

Laparoscopic cholecystectomy is gold standard treatment for cholelithiasis. Gallstone spillage is a common complication with a reported incidence varying from 6 to 30 per cent [1]. The stones may spill either during gallbladder dissection or its retrieval through one of the ports [2]. We report an unusual case of implanted or spilled gall stones presenting with chronic discharging sinus from the port site distant from the port of retrieval.

Case Report

Av 45-years old woman underwent four-port laparoscopic cholecystectomy for multiple gallstones in January 2011. The surgery was uneventful and the gallbladder was retrieved from umbilical port. No endobag was used for the gallbladder removal. Perfect homeostasis obviated any need for drain. Postoperative recovery was uneventful and the patient was discharged after 24 hrs. Two months later, the patient presented with purulent discharge from 5-mm supra-umbilical port, and was prescribed empirical antibiotics to which the infection responded. However, the patient repeatedly presented with recurrent infection and purulent discharge for the next 16 months, when it was finally decided to explore the port site.

Preoperative ultrasound failed to show any abnormality including any intra-abdominal collection. After induction of general anesthesia, skin preparation and draping, elliptical incision was made around the sinus opening. Deeper dissection revealed a thick, fibrotic sinus, roughly the size of index finger, terminated abruptly just short of peritoneum (Figures 1 and 2). Peritoneum, however, was opened but failed to reveal any underlying cause. The sinus tract was removed and opened.

Address and correspondence and reprint requests to: Dr. Syed Asad Ali, Department of Surgery, Liaquat University of Medical & Health Sciences, Jamshoro, Sindh, Pakistan, Email: sasadalishah@gmail.com.

Submitted: January 17, 2013; Accepted: January 31, 2013
Published: February 01, 2013

Figure 1: Sinus track is dissected off from skin

Figure 2: Sinus track is completely dissected towards intact peritoneum

It was found to contain 3 small gallstones (Figure 3).

Discussion

Gallbladder disruption with loss of calculi into peritoneal cavity was rare during open cholecystectomy, but is frequent in laparoscopic cholecystectomy. Stones lost into the abdomen should be removed due to their potential morbidity, if they are large or infection is present in the gallbladder at the time of surgery [1]. Retrieval of stones is difficult during laparoscopic cholecystectomy and hence recently complications in port sites or in the abdominal cavity are frequently reported [2]. Port site stitch infection, subcutaneous or superficial abscess, dehiscence and hernia are documented postoperative complications of laparoscopic cholecystectomy [3]. Rare complications like Port site tuberculosis and para umbilical tumor containing stone are also reported [4] Recently as a consequence of spilled stones fistula into port tracts have also been described [1, 5]. A spilled or implanted gallstone in the subcutaneous tissues of the abdominal wall during retrieval causing discharging sinus or abscess at the port of retrieval is a rare entity [6]. Spilled or implanted gallstones at port site away from the port from where the gallbladder was retrieved have never been reported.

This is an unusual complication and is defies any logical explanation. We presume that since the gallbladder was removed without an endobag resulting in sticking few stones in the grasper jaws which was passed through supra umbilical 5mm port and result in these three implanted stones. This complication could have been avoided had an endobag been used to safely remove the gallbladder. We therefore recommend use of retrieval bags (endobags or surgical gloves) to retrieve the gallbladders. In addition, persistent sinuses not responding to

Figure 3: Specimen of sinus track along with three gall stones

antibiotics should be investigated with ultrasound, fistulogram or CT scan [1].

Conclusions

A high sensitivity to port site stones would help radiological investigations pick up this complication. Early exploration of sinuses not responding to antibiotics is also suggested.

Authors' Contribution

ASA: concept and design, literature search and preparation of manuscript.

FGS: concept and design, literature search and preparation of manuscript.

Conflict of Interests

The authors declare that there are no conflicts of interests.

Ethical Considerations

Patients consent for publication of this case report was obtained.

Funding

None declared

Acknowledgement

None

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