

## ORIGINAL ARTICLE

# Attitude and Practices of Surgeons about Laparoscopic Cholecystectomy

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## ABSTARCT

**Background:** Laparoscopic cholecystectomy (LC) is a commonly performed procedure in general surgical units all over the world. The aim of this cross sectional study was to assess the attitude and practices of residents and staff working in the department of surgery in Department of General Surgery, IQ City Medical College, Durgapur, West Bengal with regard laparoscopic cholecystectomy.

**Materials and methods:** A cross-sectional study carried out on 30 residents and staff working in the department. The questionnaire contained 16 self- answered, close-ended questions which addressed the responder's regarding experience with and knowledge of complications due to lost gallstones; practices regarding patient information and documentation; legal liability of the operating surgeon

**Results:** The experience of the participants with complications associated with gallstone spillage during laparoscopic cholecystectomy was only 16 %. With regard to the incidence of spillage, the majority (56.4%) had opinion that it was less than 10%.

**Conclusion:** There is need to educate surgeons regarding safe practices during LC to avoid gallstone spillage, early diagnosis, and management of complications.

**Keywords:** Laparoscopic cholecystectomy, surgeons, gallstone spillage

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## INTRODUCTION

Laparoscopic cholecystectomy (LC) is a commonly performed procedure in general surgical units all over the world. The inherent advantages of the procedure that includes low post-operative morbidity with a significant economic impact were recognized after few years of its introduction. However, it comes with its own spectrum

of complications, the two most unique ones are being injury to the biliary tract and spillage of gallstones. The former can be minimized by practice and exercising due care during dissection. The latter, however, presents with consequences after a rather protracted period of time, as a whole range of seemingly unrelated symptoms which take the patient to a general practitioner rather than implicate the laparoscopic surgeon.<sup>[1-5]</sup> The aim of this cross-sectional study was to assess the attitude and practices of residents and staff working in the Department of Surgery in the Department of General Surgery, IQ City Medical College, Durgapur, West Bengal, with regard to LC.

## MATERIALS AND METHODS

A cross-sectional study carried out on 30 residents and staff working in the Department of General Surgery, IQ City Medical College, Durgapur, West Bengal, from January 2016 to December 2017. The questionnaire contained 16 self-answered, close-ended questions which addressed the responder's regarding experience with and knowledge of complications due to lost gallstones, practices regarding patient information and documentation, and legal liability of the operating surgeon.

## RESULTS

The experience of the participants with complications associated with gallstone spillage during LC was only 16%. With regard to the incidence of spillage, the majority (56.4%) had opinion that it was <10%. When asked about the duration of follow-up, the majority (82.4%) thought that 2 years were sufficiently long. In case of lost gallstones, majority of the respondents would not convert to an open procedure and would attempt to retrieve the stones laparoscopically. Only 17.1% of the respondents had the opinion that the operating surgeon should be held legally responsible for the complications associated with the spilled gallstones [Table 1].

## DISCUSSION

LC is being the gold standard for treating gallstones. There are so many studies showing about same results regarding LC. However, gallstone spillage is also a complicated process in LC.<sup>[6-9]</sup> The lost gallstones

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**Table 1:** Response to questionnaire on gallstone spillage

Question	Number (%)
Incidence (%)	
0–10	17 (56.4)
11–25	6 (18.0)
26–40	4 (14.5)
>40	3 (11.1)
Complication seen	
Yes	5 (16.0)
No	25 (84.0)
Should gallstone spillage be included in informed consent?	
Yes	26 (86.5)
No	4 (13.5)
Intervention for gallstone spillage	
Convert to open for retrieval	3 (12.7)
Laparoscopic retrieval	19 (62.6)
Peritoneal wash and suction	6 (18.5)
None	2 (6.2)
Necessary to document gallstone spillage in operative notes	
Yes	25 (84.3)
No	5 (15.7)
Document gallstone spillage in operative notes	
Yes	23 (78.2)
No	7 (21.8)
Duration of follow-up for gallstone spillage (years)	
2	25 (82.4)
5	3 (11.2)
10	2 (4.6)
20	1 (1.5)
Number of complications identified	
<5	22 (74.3)
>5	8 (25.7)
Can operating surgeon be held legally liable for complication following gallstone spillage	
Yes	5 (17.1)
No	25 (82.9)

must be recorded in operative notes as it may not only facilitate diagnosis of the resultant complications but also allow an objective assessment of the incidence of lost gallstones. In our study, documentation of lost gallstones in operative notes should be done according to 84.3% of participants, but only 78.2% of participants reported that it is done in actual practice.<sup>[10-12]</sup> According to 21.8% of participants, lost gallstones are never documented. Wauben has identified the inadequacy of operative notes of LC being representative of the procedure. Our survey too has established that even lost gallstones are often not documented in operative notes elaborating their inadequacy further.<sup>[13-16]</sup> From this revelation, we can also anticipate that estimating the frequency of lost gallstones from operative notes alone will be underreporting the actual number of cases leading to misinterpretation of the practices at large.

## CONCLUSIONS

Proper awareness of the surgical team regarding lost gallstones is imperative as it may then compel surgeons to undertake all possible measures to retrieve spilled gallstones and progress toward better and standardized practices involving lost gallstones ensuring safer surgeries and allowing prompt recognition of complications if ever they arise. There are varied practices with regard to management, documentation, and patient information. There is a need to educate surgeons regarding safe practices during LC to avoid gallstone spillage, early diagnosis, and management of complications.

## REFERENCES

1. Memon MA, Deeik RK, Maffi TR, Fitzgibbons RJ Jr. The outcome of unretrieved gallstones in the peritoneal cavity during laparoscopic cholecystectomy. A prospective analysis. *Surg Endosc* 1999;13:848-57.
2. Diez J, Arozamena C, Gutierrez L, Bracco J, Mon A, Sanchez Almeyra R, *et al.* Lost stones during laparoscopic cholecystectomy. *HPB Surg* 1998;11:105-8.
3. Rice DC, Memon MA, Jamison RL, Agnessi T, Ilstrup D, Bannon MB, *et al.* Long-term consequences of intraoperative spillage of bile and gallstones during laparoscopic cholecystectomy. *J Gastrointest Surg* 1997;1:85-90.
4. Sarli L, Pietra N, Costi R, Grattarola M. Gallbladder perforation during laparoscopic cholecystectomy. *World J Surg* 1999;23:1186-90.
5. Kimura T, Goto H, Takeuchi Y, Yoshida M, Kobayashi T, Sakuramachi S, *et al.* Intraabdominal contamination after gallbladder perforation during laparoscopic cholecystectomy and its complications. *Surg Endosc* 1996;10:888-91.
6. Catarci M, Zaraca F, Scaccia M, Carboni M. Lost intraperitoneal stones after laparoscopic cholecystectomy: Harmless sequela or reason for reoperation? *Surg Laparosc Endosc* 1993;3:318-22.
7. Fitzgibbons RJ Jr., Annibali R, Litke BS. Gallbladder and gallstone removal, open versus closed laparoscopy, and pneumoperitoneum. *Am J Surg* 1993;165:497-504.
8. Soper NJ, Dunnegan DL. Does intraoperative gallbladder perforation influence the early outcome of laparoscopic cholecystectomy? *Surg Laparosc Endosc* 1991;1:156-61.
9. Brockmann JG, Kocher T, Senninger NJ, Schürmann GM. Complications due to gallstones lost during laparoscopic cholecystectomy. *Surg Endosc* 2002;16:1226-32.
10. Woodfield JC, Rodgers M, Windsor JA. Peritoneal gallstones following laparoscopic cholecystectomy: Incidence, complications, and management. *Surg Endosc* 2004;18:1200-7.
11. Sathesh-Kumar T, Saklani AP, Vinayagam R, Blackett RL. Spilled gall stones during laparoscopic cholecystectomy: A review of the literature. *Postgrad Med J* 2004;80:77-9.
12. Horton M, Florence MG. Unusual abscess patterns following dropped gallstones during laparoscopic cholecystectomy. *Am J Surg* 1998;175:375-9.
13. Yao CC, Wong HH, Yang CC, Lin CS. Abdominal wall abscess secondary to spilled gallstones: Late complication of laparoscopic cholecystectomy and preventive measures.

- J Laparoendosc Adv Surg Tech A 2001;11:47-51.
14. Famulari C, Pirrone G, Macrì A, Crescenti F, Scuderi G, De Caridi G, *et al.* The vesical granuloma: Rare and late complication of laparoscopic cholecystectomy. *Surg Laparosc Endosc Percutan Tech* 2001;11:368-71.
  15. Van Mierlo PJ, De Boer SY, Van Dissel JT, Arend SM. Recurrent staphylococcal bacteraemia and subhepatic abscess associated with gallstones spilled during laparoscopic cholecystectomy two years earlier. *Neth J Med* 2002;60:177-80.
  16. van der Lugt JC, de Graaf PW, Dallinga RJ, Stassen LP. Abscess formation due to lost stones during laparoscopic cholecystectomy. *Ned Tijdschr Geneesk* 2005;149:2683-6.