ORIGINAL RESEARCH PAPER
Volume - 12 | Issue - 09 | September - 2023 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

ACCIDENTAL FINDING OF CBD STENT SLIPPING INTO GALL BLADDER AT LAPAROSCOPIC CHOLECYSTECTOMY FOLLOWED BY ERCP – CASE REPORT

Healthcare

Dr. Ramendranath Talukdar Professor, Department of General Surgery, SGT Hospital, Gurugram, Haryana.

Dr. Amandeep Singh Senior Resident, Department of General Surgery, SGT Hospital, Gurugram, Haryana.

Dr. Rudrax Bhatt* Junior Resident Department Of General Surgery, SGT Hospital, Gurugram, Haryana. *Corresponding Author

Dr. Kothari Jairaj Junior Resident ,Department of General Surgery, SGT Hospital, Gurugram, Haryana.

Dr. Rahul Kadam Assistant Professor, Department of General Surgery, SGT Hospital, Gurugram, Haryana.

ABSTRACT

Endoscopic retrograde cholangiopancreatography (ERCP) is followed by laparoscopic cholecystectomy (LC) is the widely accepted current treatment modality in patients with common bile duct (CBD) stones. It is a topic of debate about optimum interval between ERCP and LC. There are more chances of complications if the interval between ERCP and LC is longer, it also increases the risk of conversion to open technique as well as the need for increased hospital stay following surgery. Early LC after ERCP is always preferred.

KEYWORDS

ERCP, Laparoscopic cholecystectomy

INTRODUCTION

Studies have shown that laparoscopic cholecystectomy (LC) following endoscopic retrograde cholangiopancreatography (ERCP) is more difficult than LC for uncomplicated cholelithiasis.[1,2] The usual indication for ERCP is CBD stones and biliary pancreatitis.[3] The use of contrast in ERCP also elicits an inflammatory reaction around the common bile duct (CBD) and sphincterotomy leads to bacterial colonization causing inflammation and scarring of the hepatoduodenal ligament leading to adhesions and frozen Calot's[2,4]. This theory of bacterial colonization is supported by the finding that bacteria have been isolated from bile in 60% of patients who underwent ERCP with sphincterotomy[4,5]. A significantly higher conversion rate was encountered when LC was done 2 - 6 weeks after ERCP, as compared to 1 week after ERCP[6]. Reports of LC done within days following ERCP show conversion rates as low as those for patients with uncomplicated cholelithiasis[6].

CASE HISTORY

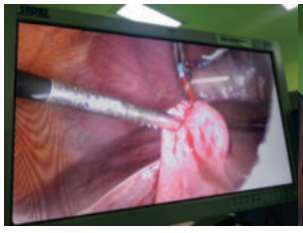
A 62 year male presented in surgery OPD with complaints of pain in right hypochondrium since 2 months. Patient also had history of dyspepsia and vomit on having fatty/oily food. Patient had no significant past history. On clinical examination: patient was vitally normal with tenderness over right hypochondrium region. Investigations were done in which showed raised Bilirubin and Alkaline Phosphatase levels and other biochemical parameters were within normal limit. Patient was clinically diagnosed as a case Acute Cholecystitis and was advised an ultrasound abdomen.

Ultrasound abdomen findings distended gall bladder with multiple focal signal void area suggestive of calculi approx 7mm. Patient had undergone MRCP which showed dilated CBD of 11.5mm in diameter just proximal to site of insertion into D2 with CBD sludge. Patient was planned for ERCP with stenting followed by laparoscopic cholecystectomy.

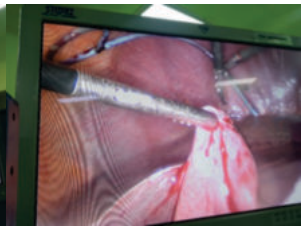
Tube like structure felt with grasper

Cutting of gall bladder at fundus and identification of stent

On laparoscopic cholecystectomy, gall bladder was found to have a tube like structure throughout from fundus to cystic duct. This structure was suspected to be CBD stent accidently passed into gall bladder. On table decision was made and gall bladder was cut over fundus and we found CBD stent which had accidently passed into gall bladder. Decision was made to remove the stent.



Pulling of stent out of gall bladder



Removal of stent

DISCUSSION

In 1968, McCune, a surgeon, reported the endoscopic technique of visualizing of the common bile and pancreatic duct. With the introduction of endoscopic sphincterotomy in 1974, therapeutic pancreaticobiliary endoscopy subsequently was developed[7]. In our hospital, ERCP with endoscopic sphincterotomy (ES) and stent placement followed by LC is routinely performed whenever choledocholithiasis is suspected. This is supported by the evidence from a randomized control trial conducted by Boerma et al[2] which states a wait and watch policy is not recommended after sphincterotomy in choledocholithiasis. In their study, 47% of patients, managed conservatively, developed at least one recurrent biliary complication and 37% needed cholecystectomy at a later date. In studies by Lau et al[8] and Costi et al[9], ERCP followed by LC was advocated for choledocholithiasis because of greater long-term morbidity and mortality in the ERCP alone group. Salman et al[4] in their study on the timing of LC following ERCP, stated that after 72 h, the inflammation makes surgery more difficult in patients and recommended performing LC within 24 - 72 h after ERCP. This study proves this by showing statistically significant differences in the occurrence of adhesions, frozen Calot's, wide cystic duct, cystic duct/artery injury as the interval between ERCP and LC progresses. Anandi et al[10], in their study concluded that cholecystectomy within 1 week after ES may prevent recurrent biliary complications in the majority of cases and reduce the postoperative hospital stay. Akaraviputh et al[11], in their study proved that same day approach for choledocholithiasis using endoscopic stone removal followed by LC is preferable. Zang et al[12] recommended that early LC after endoscopic CBD stone extraction in developing countries is feasible and safe and also reduces the total hospital cost effectively. This case report is aimed

at comparing the accidental finding of slipping of CBD stent in gall bladder encountered during LC following ERCP.

CONCLUSION

In conclusion, the optimum time to perform LC is within 3 days after ERCP. The longer the interval between ERCP and LC, the higher are the chances of encountering complications and increased need for conversion as well as prolonged operating time and hospital stay.

Though LC following ERCP is the gold standard for choledocholithiasis in the current general surgical practice, the operating surgeon should always be aware of our case difficulty encountered. Knowledge of these challenges will enable the surgeon in providing a safer and more favorable outcome in cholecystectomy.

REFERENCES

1. Reinders JS, Gouma DJ, Heisterkamp J, Tromp E, van Ramshorst B, Boerma D. Laparoscopic cholecystectomy is more difficult after a previous endoscopic retrograde cholangiography. HPB (Oxford). 2013;15(3):230-234. doi pubmed
2. Boerma D, Rauws EA, Keulemans YC, Janssen IM, Bolwerk CJ, Timmer R, Boerma EJ, et al. Wait-and-see policy or laparoscopic cholecystectomy after endoscopic sphincterotomy for bile-duct stones: a randomised trial. Lancet. 2002;360(9335):761-765. doi
3. Lakatos L, Mester G, Reti G, Nagy A, Lakatos PL. Selection criteria for preoperative endoscopic retrograde cholangiopancreatography before laparoscopic cholecystectomy and endoscopic treatment of bile duct stones: results of a retrospective, single center study between 1996-2002. World J Gastroenterol. 2004;10(23):3495-3499. pubmed
4. Salman B, Yilmaz U, Kerem M, Bedirli A, Sare M, Sakrak O, Tatlicioglu E. The timing of laparoscopic cholecystectomy after endoscopic retrograde cholangiopancreaticography in cholelithiasis coexisting with choledocholithiasis. J Hepatobiliary Pancreat Surg. 2009;16(6):832-836. doi pubmed
5. Csendes A, Burdiles P, Maluenda F, Diaz JC, Csendes P, Mitru N. Simultaneous bacteriologic assessment of bile from gallbladder and common bile duct in control subjects and patients with gallstones and common duct stones. Arch Surg. 1996;131(4):389-394.
6. de Vries A, Donkervoort SC, van Geloven AA, Pierik EG. Conversion rate of laparoscopic cholecystectomy after endoscopic retrograde cholangiography in the treatment of choledocholithiasis: does the time interval matter? Surg Endosc. 2005;19(7):996-1001.
7. Phillips MS, Marks JM. Endoscopic Retrograde Cholangiopancreatography: General Principles. The SAGES Manual. 2012;411-425.
8. Lau JY, Leow CK, Fung TM, Suen BY, Yu LM, Lai PB, Lam YH, et al. Cholecystectomy or gallbladder in situ after endoscopic sphincterotomy and bile duct stone removal in Chinese patients. Gastroenterology. 2006;130(1):96-103. doi pubmed
9. Costi R, DiMauro D, Mazzeo A, Boselli AS, Contini S, Violi V, Roncoroni L, et al. Routine laparoscopic cholecystectomy after endoscopic sphincterotomy for choledocholithiasis in octogenarians: is it worth the risk? Surg Endosc. 2007;21(1):41-47. doi pubmed
10. Schiphorst AH, Besselink MG, Boerma D, Timmer R, Wiezer MJ, van Erpecum KJ, Broeders IA, et al. Timing of cholecystectomy after endoscopic sphincterotomy for common bile duct stones. Surg Endosc. 2008;22(9):2046-2050. doi pubmed
11. Akaraviputh T, Rattanapan T, Lohsiriwat V, Methasate A, Aroonpruksakul S, Lohsiriwat D. A same day approach for choledocholithiasis using endoscopic stone removal followed by laparoscopic cholecystectomy: a retrospective study. J Med Assoc Thai. 2009;92(1):8-11. pubmed
12. Zang J, Zhang C, Zhou H, Gao J. Early laparoscopic cholecystectomy after endoscopic common bile duct stone extraction: the experience from a developing country. Surg Laparosc Endosc Percutan Tech. 2011;21(2):120-122. doi pubmed