

## Will intraoperative cholangiography prevent biliary duct injury in laparoscopic cholecystectomy?

Li-Bo Li, Xiu-Jun Cai, Jun-Da Li, Yi-Ping Mu, Yue-Dong Wang, Xiao-Ming Yuan, Xian-Fa Wang, Urs Bryner, Robert K Finley Jr

Li-Bo Li, Xiu-Jun Cai, Jun-Da Li, Yi-Ping Mu, Yue-Dong Wang, Xiao-Ming Yuan, Xian-Fa Wang, Department of General Surgery, Sir Run Run Shaw Hospital, Medical College, Zhejiang University, Qingchun Road East 3, Hangzhou 310016, Zhejiang Province, China

Urs Bryner, Robert K Finley Jr, Department of General Surgery, Medical Center, Loma Linda University, Post Office Box 2000, CA 92354, United States

Author contributions: All authors contributed equally to the work.

Correspondence to: Dr. Li-Bo Li, Department of General Surgery, Sir Run Run Shaw Hospital, Medical College, Zhejiang University, Qingchun Road East 3, Hangzhou 310016, Zhejiang Province, China. [lilibo@mail.hz.zj.cn](mailto:lilibo@mail.hz.zj.cn)  
Telephone: +86-571-6995056

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### Abstract

**AIM:** To evaluate the role of intraoperative cholangiogram (IOC) in preventing biliary duct injury during laparoscopic cholecystectomy.

**METHODS:** Injury location, mechanism, time of detection, treatment outcome, and whether an intraoperative cholangiogram was performed were evaluated in 31 cases of bile duct injuries.

**RESULTS:** Cholangiograms were done in 22 cases, but they were

misinterpreted in 3 of them. In 12 of 19 misidentified cases, the cholangiogram was interpreted correctly, and the injury detected intraoperatively. Primary laparoscopic repair or open repair and T tube drainage solved the problem. No long-term complications occurred. However, in 3 of the 19 cases the cholangiogram was misinterpreted and in 4 of the 19 cases no cholangiogram was performed. Three of the seven patients required a cholangioenteric anastomosis. In 2 cases the diagnosis was delayed and one of these required a two-stage procedure. Morbidity was increased. Three cases of clip impingement of the common duct had delayed diagnoses, and two of them had injuries. Thermal injury developed in 4 cases who had cholangiograms.

**CONCLUSION:** Routine IOC plays no role in inducing, preventing, detecting, or minimizing any of the injuries due to clips, lacerations, or electrocautery. IOC does not prevent injuries due to duct misidentification either. Careful interpretation of IOC would prevent injuries and avoid an open operation.

**Key words:** Cholangiogram; Bile ducts/injuries; Laparoscopy; Cholecystectomy/complications; Intraoperative cholangiogram

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