Format for ANSWERING REVIEWERS

January 12, 2015

Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: 15340-review.doc).

Title: Biliary leakage after urgent cholecystectomy: Optimization of endoscopic treatment

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The manuscript has been improved according to the suggestions of reviewers:

1 Format has been updated.

2 Revision has been made according to the suggestions of the reviewer:

(1) Reviewed by 01799104

ANSWER:

1. Thank you for your observation. Flow chart is corrected (Figure 2).

(2) Reviewed by 02948135

ANSWERS:

1. We agree that the rate of bile leakage in this study (2.2 %) is very high. In the study we included only patients with urgent cholecystectomy, which is probably the main cause of relatively high number of complications. In the literature, the average number of complications such as bile leakage is 0.5% to 1.1%, but if we are looking at studies that track only acute cholecystectomy, the number of complications such as bile leakage is higher, up to 4% (Ref. Brodsky A, Matter I, Sabo E, Cohen A, Abrahamson J, Eldar S. Laparoscopic cholecystectomy for acute cholecystitis: can the need for conversion and the probability of complications be predicted? A prospective study. Surg Endosc 2000;14: 755-760). Bile leakage (without overt bile-duct injury) is the most common biliary-tract complication of elective laparoscopic cholecystectomy. The most common cause of biliary leakage and major bile-duct injury during LC is severe inflammation with

distorted anatomy of Calot's triangle, and mistaking of the common bile duct for the cystic duct. In many patients with acute cholecystitis, the cystic duct is indurated, thin, and shortened, lying in intimate contact with the common bile duct, which makes its identification difficult for the surgeon. So we were not surprised by such a high percentage of biliary leak. Accordingly, we have added some new references (REF. 3,6,9) and explanations (page12, paragraph 1).

2. The primary objective of this study was to analyze endoscopic treatment of biliary leakage. We agree with the reviewer that it would certainly be interesting to analyze surgical techniques and materials. Anyhow, very valuable suggestions for the next article with additional objectives and aims.
3. Among 27 patients initially included in the follow-up (median 30.5 month, range 7-59 months), four patients (14.8%) died. All of deceased patients died of severe underlying comorbid illnesses: malignancy (one patient), cerebrovascular accidents (one patient) and heart failure (two patients). Of all selected operated patients only one fatal outcome after technically successful ERC due to acute myocardial infarction occurred during hospitalization. That was included in the text (page 8, second paragraph, page 12, first paragraph).
4. Emergency cholecystectomy in our institution is performed by duty surgeons, who are not always highly experienced in laparoscopic cholecystectomy. We agree with the reviewer that probably that will be also the significant cause of high prevalence of biliary leakage among our patients. We discussed that on the page 12, Discussion section (first paragraph)
5. The “Discussion” section is significantly improved.

(3) Reviewed by 00058210

ANSWERS:

1. According to your very constructive proposals, results section was simplified: 30 patients were included in the study and 27 of them with successful ERC were included in the long- term follow-up (page 28, Figure 2).
2. Sphincterotomy was performed in patients with cholangiographic evidence of common bile duct stone(s), in patients with suspected bile duct stone and in patients in whom cannulation of the common bile duct was difficult and needle-knife papillotomy was performed (page 9, third paragraph).
3. Result section is much better organized, and significantly improved, including subchapters.

4. Figure 3 shows leakage closure (healing) after first ERC in all patients by whom leakage was endoscopically solved.
5. This is database observational study and that was included in the Patients and Methods section (page 2, first paragraph, page 5, first paragraph).
6. All consecutive patients with bile appearance from either percutaneous drainage of abdominal collection or abdominal drain placed at the time of cholecystectomy underwent ERC and this was included in Patients and Metods section (page 5, first paragraph).
7. We have distinguished cystic duct leakage from Lushka leakage (Table 2).
8. Table 4 (now Table 3) present clinical characteristics of 27 ERC healed patients with post-cholecystectomy biliary leakage in the long-term follow-up.

3 References and typesetting were corrected.

Thank you again for publishing our manuscript in the *World Journal of Gastrointestinal Endoscopy*

Sincerely yours,

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