Peer Review File

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Reviewer A:
COMMENT 1:The problem is that no search has been carried out with regard to bailout surgery (BOS) or bailout procedure, vasobiliary injury (VBI) and postoperative biliary complications.
REPLY 1: **Dedicated chapters are addicted in the manuscript.**
CHANGES IN THE TEXT: Page 7, line 167-209; Page 9, line 212-272.

COMMENT 2: The repair of remnant cystic ducts is very important point patients with DLC underwent lap-subtotal cholecystectomy, in cases of fragile remnant cystic ducts where a stapler or clip cannot be performed. The remnant cystic duct will need to be sutured and, in those cases, post-operative biliary leakage is likely to be a major concern. Authors should be reviewing about this point.
REPLY 2: **The author added the suture of fragile cystic duct**.
CHANGES IN THE TEXT: Page 11, line 271-272

COMMENT 3: We check the D-line before starting Lap-C to avoid BDI or VBI. There was also no reviewing at this point. We performed subtotal cholecystectomy under Lap. whenever possible for DLC cases, and in the last four years there have been no cases of conversion to open subtotal cholecystectomy. I think that the future trend is to perform subtotal cholecystectomies safely under laparoscopic without conversion to celiotomy.
REPLY: **We added the D-line as a anatomical landmark.**
CHANGES IN THE TEXT: Page 5, line 102-105

COMMENT 4: I have some Qx about VIDEO case. What is the cause of the dilated cystic duct? If the stone was fitted into cystic duct on the common bile duct side, wouldn't that mean that the residual stone was stapling without checking it? Authors were using ICG fluorescence technique, however I did not recognize that ICG did not come into gallbladder thorough cystic duct. I recommend that the cystic duct should be incised to check for come out of bile juice and then should be suturing or ligating. Furthermore, there was not review about ICG fluorescence technique in the main text, especially author should be reviewing effectiveness of case for DLC.
REPLY: **The cause of dilated cystic duct is due to common bile duct lithiasis, treated with ERCP before surgery; In this case the ICG help us to recognize the common bile duct in order to avoid injury of CBD. About the use of ICG in the DLC we added a point in the text.**
CHANGES IN THE TEXT: Page 7, Line 157-164.

Reviewer B:
This paper well described several techniques to minimize the bile duct or hepatic injury
COMMENT 1: Conditions termed as DLC are some obscure, especially longer operation time, ; so it is better for description of authors's opinion
REPLY 1: **The DLC is a distress condition characterized by a lot of factors which are all described in the text; longer operation time is one of these factors.**
CHANGES IN THE TEXT: Page 5, Line 112-127
COMMENT 2: (120) Is Proper hepatic artery (RHA) correct?; right hepatic artery ?? or (PHA) ??
REPLY 2: **There is a typo. Now is correct.**
CHANGES IN THE TEXT: Page 10, Line 232

COMMENT 3: (170) anatomical land mark; It is better to describe How to use the land marks
Ex)1) start to dissect upwards from the Rouvierse sulcus
2) cystic artery is located behind cystic duct LD, so careful dissection is need
REPLY 3: **We added how to use landmarks.**
CHANGES IN THE TEXT: Page 5, Line 99-100

Reviewer C:
COMMENT 1: Avoiding accidental anatomical structures injuries during laparoscopic cholecytectomy is very important point. Authors performed a traditional narrative literature search to find out what would be the best surgical technical approach to avoid these accidents. But, only performing literature search will not provide useful informations to readers. Performing statisical analysis such as forest plot might be useful.
REPLY 1: **The authors agree with this comment; anyway for a narrative review it's not mandatory make a statistical analysis or, better, a meta analysis to perform a forest plot. So, in the plan of this paper, we do not considered to perform it. It could be a very interesting idea for another paper, thanks.**
CHANGES IN THE TEXT: none

COMMENT 2: In the introduction section, authors mentioned that BDI occurs at a high frequency, despite the advance in technology, However, sited references are too old. Newer references are needed.
REPLY 2: **We have updated the references**.
CHANGES IN THE TEXT: Page 3, line 67-69

COMMENT 3. This study aimed to advise the best surgical technical approach for LC. But the conclusion does not match with the aim.
REPLY 3: **We modified the conclusion in order to make it agree on the aim**.
CHANGES IN THE TEXT: Page 13, Line 306-312

Reviewer D:
COMMENT 1: No aim is stated in the background of the abstract – please state.
REPLY 1: **The aim is now added in the abstract**.
CHANGES IN THE TEXT: Page 2, Line 37-38

COMMENT 2: It is stated in the introduction 'Although with the advance in instrumentation, imaging, and surgical technique, bile duct injuries (BDI) still occur at a high frequency' is incorrect. Bile duct injuries are infrequent. The referenced studies are also outdated, 1993 and 1994, respectively.
REPLY 2: **We have updated the references**
CHANGES IN THE TEXT: Page 3, line 67-69

COMMENT 3: The main body of the article should be presented in a structured way. It should be divided by sub-headings.
REPLY 3: **The main body is now structured**
CHANGES IN THE TEXT: Page 4, Line 96-303

COMMENT 4: When discussing the fundus-first approach, the risks of vascular/biliary injuries must be stated. Please read: 'Extreme' vasculobiliary injuries: association with fundus-down cholecystectomy in severely inflamed gallbladders'. Furthermore, the risks of subtotal should also be discussed.
REPLY 4: **We read that article and we added it in the references. We also explain that care must be taken with this approach beacuse can trick the surgeon**

CHANGES IN THE TEXT: Page 6, Line 147-151

COMMENT 5: The article requires quantitative analysis before any inferences can be made. How effective are the bail out options?
REPLY 5: **The authors agree with this comment; anyway for a narrative review it's not mandatory make a statistical analysis. So, in the plan of this paper, we do not considered to perform a quantitative analysis. It could be a very interesting idea for another paper, thanks.**
CHANGES IN THE TEXT: None.

COMMENT 6. The conclusions of the review are limited. We know that bail-out options should be considered. What are your recommendations?
REPLY 6: **We modified the conclusion. We added a chapter about bail-out procedure and the authors recommend that is mandatory to preserve the patient safety; so the experience of the surgeon and the clinical context should guide to the most suitable choice.**
CHANGES IN THE TEXT: Page 13, 308-313; page 7, Line 168-211

COMMENT 7: Although you explain that the definition of difficult cholecystectomy is unclear, please reference the Nassar grading criteria, and others, which attempt to grade severity. Please discuss the role of these grading criteria.
REPLY 7: We added Nassar grading criteria and cited others. We explain why they could be useful.
CHANGES IN THE TEXT: Page 5, Line 121-129.

Reviewer E:
The authors present an original work examining A NARRATIVE REVIEW ABOUT DIFFICULT LAPAROSCOPIC CHOLECYSTECTOMY: TECHNICAL TIPS. There are many major revise in this manuscript.

Major revisions
COMMENT 1. In the part of abstract the conclusion is unclear. The last part of "ligation" is meaningful.
REPLY 1: **It's is a Typo. The correct word is LITIGATION**.
CHANGES IN THE TEXT: Page 2, Line 52.

COMMENT 2: In introduction, bile duct injurie (BDI) in laparoscopic cholecystectomy (LC) still occur, however it incidence is not so high around 0.3%, Please change these sentences.
REPLY 2: **We have updated the references**
CHANGES IN THE TEXT: Page 3, line 67-69

COMMENT 3. As you described the second paragraph in discussion section, cystic duct leakage (CDL) could be cured by ENBD after the surgery. CDL is not a big problem as you discussed.
REPLY 3: **The CDL was discussed in the text because it is the most common less serious BD and to be as detailed as possible**.
CHANGES IN THE TEXT: None.

COMMENT 4. Abbreviation is not appropriate, proper hepatic artery is PHA not RHA.
REPLY 4: **There is a typo. Now is correct.**
CHANGES IN THE TEXT: Page 10, Line 232

Reviewer F:

COMMENT: The author's aim is to educate surgeons in technical tips mainly for avoiding

intraoperative biliary and/or vascular injury during challenging laparoscopic cholecystectomy through this narrative review. They concluded that surgeons should always keep bailout procedures in mind as an optional approach to prevent vascular and/or biliary injuries. However, the content of discussion section has been devoted a lot to topic of surgical clips, drains, and intraoperative cholangiography (which are not very important, and has not been concluded yet), and unfortunately there is little consideration for the essential bailout procedures. What readers want to know is how to overcome the crisis when encountering a difficult gallbladder, such as “fenestrating”, “reconstituting”, “fundus-first”, “cholecystostomy”, etc. And it is necessary to consider them in depth. Moreover, the indications for laparotomy are only when laparoscopic bailout above cannot be performed safely. In this paper, “fenestration” and “subtotal cholecystectomy” are mentioned as procedures in open cholecystectomy, which might mislead readers.

REPLY: **We added a whole chapter about the bail-out procedure; we reviewed the paragraph about subtotal cholecystectomy that was incomplete.**

CHANGES IN THE TEXT: Page 7, Line 168-211