Response to reviewers

Reviewer 00038999:

Marya et al have performed a narrative review of the litterature on the endoscopic management of PSC. They have covered relevant and important topics, including diagnosis of PSC, diagnosis of concomitant IBD and surveillance for colorectal cancer, diagnosis of esophageal varices, surveillance for cholangiocrcinoma, diagnosis and treatment of strictures. The paper is concise and interesting. Specific comments 1. The authors should consider inserting a comment on the fact that inserting the 10F SOC catheter in a narrowed CBD of a patient with PSC may be challenging. 2. The authors should consider adding a comment on surveillance with transabdominal ultrasound, besides MRCP, in order to better visualize the gallbladder. US is mentioned in the figure as (an alternative to MRCP). There is no consensus as to how cholangiocarcinoma surveillance may be performed in PSC but US may at least be considered as an add-on to MRCP as well. 3. A comment on EUS should probably be added, including a short discussion of the concerns re FNA in patients who are candidates for a liver transplant. 4. Similarly, the authors could consider adding a comment on confocal laser endomicroscopy as an emerging endoscopic modality that could aid in the differential diagnosis of strictures in PSC, etc 5. A short comment on the role of SOC idenifying bile duct stones in these patients should also be considered.

Response: We thank this reviewer for their comments. We have inserted a statement regarding the difficulty inserting the 10 french SOC catheter for patients with PSC. We have inserted a comment regarding using surveillance with transabdominal ultrasound for gallbladder carcinoma surveillance. We provided a paragraph discussing the role of EUS in patients with PSC and specifically noted concerns of transperitoneal biopsy in transplant candidates. We added a discussion regarding confocal laser microscopy.

Reviewer 00160002:

Dear Authors: I have read and reviewed your manuscript. You have chosen a field in the gastroenterology and hepatology that has some controversies and needs further elucidation. The manuscript covers a good structure covering an introduction and coverage of direct and indirect endoscopic intervention used in PSC patients. But I think that having a 360 degree review in 2018 needs some other newer fields to be discussed further. One issue is confocal microendoscopy in the diagnosis of cholangiocarcinoma or biliary strictures. Another item would be the minimal role of the EUS in the evaluation and diagnosis of the same problem, i.e. biliary stricture/ cholangiocarcinoma. In the section of dominant stricture, last paragraph when you were referring to a European study the reference number comes at the end the paragraph, but the reader may need it after the first sentence referring to the study. At the end of the same paragraph you give a recommendation; I think that the data on this field are not enough and bias-free enough to give a clear-cut recommendation. One can say that we are doing this and that but as a recommendation further evidence is needed. Best wishes

Response: As mentioned above, we added a comment regarding confocal endomicroscopy and endoscopic ultrasound. We also addressed this reviewer's comment regarding the recommendation we made in relation to short term biliary stenting versus balloon dilation of dominant strictures.

Reviewer 02535288:

This work by Drs. Marya and Tabibian has summarized endoscopic management of primary sclerosing cholangitis (PSC). Authors discussed the history, surveillance, and the applications of endoscopy in management PSC and biliary obstruction, and slightly point out the directions for further studies in clinical practice. Management of primary sclerosing cholangitis and biliary obstruction is a difficult situation in clinical practice, both ERC and MRCP are of critically important for disease evaluation, further investigation would help to advance the practice in these areas and provide better treatment options for doctors and patients. Regarding this work, the writing style and structure of the text appears in need of improvement, many statements of the manuscript are lengthy with redundancy wordings, more professional descriptions are desired; revision to make it more concise and up-to-the-point would benefit readers. The overall quality of the draft can be improved by adding further in-depth analysis of the currently practice, and provide a directional guide for disease management of future effort, therefore help moving the field forward. Authors are encouraged to revise and add more input to make the manuscript more attractive.

Response: We thank this reviewer for their comments. We improved the lengthiness and redundancy of some of the text of the field. We also added more in-depth analysis by adding commentary regarding confocal laser microscopy and endoscopic ultrasound.

Reviewer 03474653:

This is an interesting and well prepared review that extend over the hole range of sclerosing cholangitis and the endoscopic manage of it. Well composed with old and recent references. You really enjoy to read and follow the hole theme and their propose that reflect the new trade. I am a little afraid that there are similar review and minireview already published.

Response: We thank this reviewer for their comments. We hope that by including statements regarding confocal laser microscopy and endoscopy ultrasound based on the comments by the other reviewers that we will be able to provide an important update on the endoscopic management of PSC which will make this paper unique.

Point-by-point response to comments by Journal Editor-In-Chief

We appreciate the comments made by the Journal Editor-In-Chief. Below are our point-by-point responses:

1. Since this review is about PSC, it is better to include this term in the Key words;
We agree that the term "primary sclerosing cholangitis" should be an added key word.

2. In page 7, you mentioned that "Practice guidelines support performing esophagogastroduodenoscopy for variceal screening in patients with PSC who develop cirrhosis." Related references are needed.
We agree that additional references are needed. We have added two new references of clinical guidelines supporting the role of esophagogastroduodenoscopy for variceal screening for patients with PSC.

3. In Figure 1, there may be some mistakes about CA-125 since the whole manuscript taked about CA-199.
We agree that this was a typo. We agree with removing references to CA-125 in Figure 1 and replacing with CA 19-9

We would like to thank the journal editor for their comments.