

Reviewer #1:

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Minor revision

Specific Comments to Authors: The Paper is well structured, showing an exciting topic. It might have been ready for publication if the following issues had been addressed.

- Thank you for your positive feedback. We have revised the manuscript based on your suggestions. We hope you will find our efforts satisfactory and recommend the manuscript for publication.

Firstly, the English need to be revised slightly;

- Thank you. We have revised the English. To be doubly sure of the quality, we have taken the help of a professional language editing company.

secondly, there needs to be more detail about the molecular mechanisms at play in AP; thirdly,

- Thank you. We have added the molecular mechanisms in section 3 "Pathobiology of pancreatitis." (lines 110-128, Figure 3).

a brief overview of the medical treatment options for treating AP is needed;

- Thank you. We have added the "Summary of guidelines: medical treatment options" in section 6 (lines 293-360, Figure 4 &5). A brief note of the author's personal experience has also been added.

and finally, the authors need to share more of their thoughts to provide a complete summary of the guidelines.

- Thank you. We have added the "Summary of guidelines: medical treatment options" in section 6 (lines 293-360, Figure 4 &5). Table 2 contains high-quality recommendations related to surgical interventions in different guidelines.

Reviewer #2:

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Accept (General priority)

Specific Comments to Authors: This is a well-written review article on surgical treatment of acute pancreatitis. The method and timing of surgical treatment are explained in an easy-to-understand manner by citing various guidelines.

- Thank you for your positive feedback.

Reviewer #3:

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Major revision

Specific Comments to Authors: This is a fairly comprehensive review of historical and recent literature on pancreatitis. However, it does not go far beyond what can be found in any recent textbook chapter. 1. The review simply lists the various sets of guidelines from national and international societies and summarizes each, but would be strengthened by synthesizing them into a recommended approach, perhaps with a pathway diagram. 2. Similarly, a table might be constructed comparing similarities and highlighting differences among these guidelines which could then motivate a more focused discussion of the differences among them and the authors' attempt to explore those differences and make a recommendation based on the literature.

- Your encouraging and valuable comments are much appreciated. We have added the "Summary of guidelines: medical treatment options" in section 6 (lines 293-360, Figure 4 & 5). Table 2 contains high-quality recommendations related to surgical interventions in different guidelines. We are sure the esteemed reviewer agrees that these guidelines coincide on most vital parts and do not contradict each other or have major differences. They are all based on the available literature available at the time of formulation and the scope of guidelines; for example, the 2018 AGA guidelines focused only on the initial management of AP.

3. The authors several times repeat the idea that surgical management of acute pancreatitis has been very common until recently and that medical non-operative

management has only recently become recommended. This is certainly not true. It has been clear for decades that surgery is not the best approach to most patients with pancreatitis.

- We agree with the reviewer that decades surgery is not the best approach for most patients with pancreatitis. In the first few decades of the twentieth century, various procedures, such as drainage, resection, and cholecystostomy, were performed, but operative mortality remained close to 60% [22]. *Later, as the understanding of pancreatic physiology improved and diagnostic modalities advanced, conservative management of patients gained preference (lines 154-158).*

4. The authors could consider adding a section that outlines what is currently known about the pathobiology of pancreatitis at the cellular and tissue level (as opposed to just saying it's mostly alcohol and gallstones with some few other less usual causes).

- Thank you. We have added the molecular mechanisms in section 3 "Pathobiology of pancreatitis." (lines 110-128, Figure 3).

5. Page 11 line 217: We find the rather odd statement "Cholecystectomy and removal of the major bile ducts can be performed to prevent the recurrence of biliary pancreatitis." While I agree that cholecystectomy is indeed indicated, "removal of the major bile ducts" would seem potentially lethal. Do the authors mean "exploration" rather than "removal"? In the era of intraoperative cholangiography, MRCP and ERCP, what are the indications for even duct exploration if the acute pancreatitis is resolved and the operation is prophylactic?

- Thank you for your comment. We have rephrased it to "Cholecystectomy and clearance of the major bile ducts can be performed to prevent the recurrence of biliary pancreatitis." to convey the point you mentioned (line 201).

6. The authors seem to recommend open cholecystectomy in some patients with acute biliary pancreatitis. Wouldn't laparoscopic cholecystectomy with either preoperative ERCP or intraop bile duct exploration be more appropriate?

- We agree with you. We have added the "Summary of guidelines: medical treatment options" in section 6 (lines 293-360, Figure 4 &5) to describe the appropriate interventions clearly.

Reviewer #3:

Scientific Quality: Grade B (Very good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Accept (General priority)

Specific Comments to Authors: Satisfactory revisions.

Thank you for your comment.