

Answering reviewers and editor comments

Reviewer 1

A nicely designed and perfectly drafted review, presenting novel interpretation of known data. I would suggest enhancing quality of the figures 5 and 6.

Thank you for your comments. Figures 5 and 6 were pasted onto a word document and submitted as one document for the purposes of the submission as per guidelines. For the final submission we will provide the jpeg obtained from the publishers.

Reviewer 2

The non-specific symptom and sign, as well as vague findings by imaging tools and functional tests, make the diagnosis of chronic pancreatitis become difficult, especially at its early stage. Though the incidence is increasing in most countries, the diagnostic standard has not been reached. In this manuscript, the authors reviewed the now available diagnostic tools and questioned the known concept that steatorrhea only occurs with >90% destruction of the gland. The review is helpful for physicians who puzzled in diagnosis and treatment of chronic pancreatitis for the disease is rarely for each of them.

Thank you for your comments.

For my opinion, there are three items should be discussed.

1. It is better to discuss the novel diagnostic techniques more for these techniques are promising and attractive to deal with the diagnostic problem.

The objectives of the review were to summarise the available diagnostic tools, to discuss the most recent guidelines, and to briefly introduce the more novel techniques. We accept your point that an expansion of this section would be of interest and attractive, however, this was not our aim, and might be better left to another review.

2. The statement of "steatorrhea only occurs with >90% destruction of the gland" is rarely mentioned now for the concept was proposed in 1970's and 80's from poor diagnostic tool at that time. In this review, the main objective is to discuss the newly development techniques of pancreatic diagnosis, so the deduced space is better.

We see this section as a pivotal part of the review. We agree that this concept was proposed in the 1970's and 1980's, but we disagree that this is rarely mentioned now.

As an example, the 2010 'Management of pancreatic exocrine insufficiency: Australasian Pancreatic Club recommendations' by Toouli et al stated:

“Because of the high reserve capacity of the pancreas and compensatory mechanisms that partly substitute for the loss of pancreatic enzymes, clinical symptoms of PEI do not usually manifest until duodenal lipase levels fall below 5%–10% of normal postprandial levels.”

Therefore we feel it is imperative to challenge this concept.

3. In line 12-13 page 8 (In 2010, the Japanese clinical diagnostic.....), we can see the number 1,2,3,4,6...., and 5 is not here.

This has been amended

Reviewer 3

1-The language should be American English, not British English, or according to the Author guidelines.

The document was revised with this in mind, and the language has been changed to American English.

2-CT/MRCP and ERCP are most used methods in clinical practice, therefore should be emphasized in details.

Details on CT, MRCP and ERCP take up a large part of the text. As well as these methods, we also wanted to summarize the other available methods.

The following sentences are in the text:

‘CT is a widely-used imaging modality’

‘MRI is more sensitive than CT and is emerging as the initial radiological imaging modality of choice for the evaluation of chronic pancreatitis with unequivocal CT scans’

We wanted to emphasize that ERCP should not be used solely as a diagnostic tool. The text was therefore amended to read as follows:

‘With the widespread availability of other non-invasive imaging modalities, ERCP should not be used for the diagnosis of chronic pancreatitis. ERCP is also limited by the fact that it does not allow evaluation of the pancreatic parenchyma.’

3-Pancreatic function tests are very important for diagnosis of chronic pancreatitis. The authors summarized the methods of pancreatic function test, but they did not discuss why these methods are not widely used in clinical practice, especially the direct testing methods.

In the section on direct pancreatic function testing, the following statement is made:

'These tests are invasive (requiring endoscopic procedures), expensive and tend not to be widely done outside of specialist centres.'

For the 3-day fecal fat test, the following statement is made:

'However the 3 day faecal fat assessment is a cumbersome test for both patients and laboratory personnel, and is not routinely done.'

Editors' comments

In accordance with the revision guidelines, the text is presented in font 12, Book Antiqua, with 1.5 spacing.

1. Conflict of interest statement on title page

Done

2. Detailed address required

Done

3. Audio core tip

Provided

4. Change spacing to 'normal'

Spacing changed to 1.5 as per guidelines

5. Change all reference citations to square brackets/superscript

Done

6. Provide tables as word or excel

All tables are provided as word.

7. 'Figure 5 should be decomposable:'

This is a figure taken from another publication with permission under the condition that it is not altered. I have this as a JPEG, but not as a decomposable image.

8. 'Figure 6 should be decomposable':

This is a figure taken from another publication with permission under the condition that it is not altered. I have this as a JPEG, but not as a decomposable image.

9. References to be amended

As requested, PMID and DOI citations have been added, volume is bolded and first author is bolded. Journal title is in italics. All authors are listed. All relevant references have a PMID and therefore the first page scan is not required.