NO: 81388

Portal Vein Aneurysm – etiology, multimodal imaging and current management

Please resolve all issues in the manuscript based on the peer review report and make a point-by-point response to each of the issues raised in the peer review report. Note, authors must resolve all issues in the manuscript that are raised in the peer-review report(s) and provide point-by-point responses to each of the issues raised in the peer-review report(s); these are listed below for your convenience:

Dear Editor,

Thank you for reviewing our manuscript and for giving us the opportunity to revise it according to the reviewrs' comments. We hope that we have made satisfactory adjustments according to the reviewer's comments and so improved the manuscript. The comments have been answered point by point.

Reviewer #1:

Specific Comments to Authors: This is an interesting review and I have got many new knowledge. In this manuscript, the authors reveiw the portal Vein Aneurysm, including its etiology, multimodal imaging and current management. As you descibed, there are many causes for the formation of PV aneurysms. I think the spenic arteriovenous fistula is an important etiology for PV aneurysm. However, only three cases have been included in your 62 cases. There are many other cases which are not included, for example (PMID: 35991484, 34487808, 35850555,34953975, 30092427,30092427, 26522588), and so on. The number of cases would be much larger than 62. I would like to suggest the authors to search and add these cases into your manuscript, which were dignosed with splenic arteriovenous fistula. Because they usually are associated wth PV aneurysm.

We have reviewed all six articles following by delivered PMID (s) (one reference PMID: 30092427 was written twice). All mentioned references refer to arteriovenous fistula, splenic artery aneurysm, celiac artery aneurysm, and do not refer to the PVA that was the subject of our analysis, and therefore we did not include them in our study (see below):

PMID:35991484; Title: A rare case of gastric varices and splenic artery aneurysm secondary to splenic arteriovenous fistula.

PMID: 34487808; Title: Splenic Arteriovenous Fistula Accompanied by Splenic Artery Aneurysm Associated with Acute-onset Portal Hypertension and Gastrointestinal Bleeding: Case Report and Literature Review.

PMID: 35850555; Title: Portal Hypertension Due to a Traumatic Arteriovenous Fistula in a Patient With a Celiac Artery Aneurysm.

PMID: 34953975; Title: Portal hypertension due to hyperflow: Splenic arteriovenous fistula.

PMID: 30092427; Title: Portal Vein Thrombosis after Endovascular Embolization of Splenic Artery for a Symptomatic Arterioportal Fistula: A Case Report and Literature Review.

PMID: 30092427; the same as above.

PMID: 26522588; Title: Combined Endovascular Embolization and Open Surgery for Splenic Artery Aneurysm with Arteriovenous Fistula.

Reviewer #2:

Specific Comments to Authors: Thank you for inviting me to review this article. The topic about PVA is interesting and not many articles reviewed about it. Nonetheless, I have some concerns as follow:

1. What in the abstract part should be in the introduction part of main text, and what in core tips should be in the abstract instead. I suggest to rewrite the core tips to demonstrate the learning points from the review.

We thank the reviewer for the suggestion. We have made changes to the text in accordance with the recommendation.We rearranged the Core tip and demonstrated learning point of our review.

2. In this review, the authors included only 62 patients in 2015-2022. Why don't the authors included the prior 190 cases in this review altogether? If it is totally separated set of patients, it can't be an updated review, it is just a separate set of patients, and the readers need to go to the detail of the previous review before reading this review, which is not practical. The readers would only get the picture of these 62 patients, not all >250 cases overall as a big picture. Are these 62 patients resemble the prior 190 patients? We need more clarification.

In English available literature there has been only one review from 2015, covering all aspect of PVA in 190 cases. *Laurenzi et al. Portal vein aneurysm: What to know. Dig Liver Dis 2015; 47: 918-923.*

With our review, including new 62 patients - morphology of PVA, etiology, clinical presentation, diagnostic imaging and treatment were fully assessed in all detail (Table 1 and Table 2). These tables could be interpreted like separate set of patients.

From other side, in our main text, we consider and compare all features of 62 PVA cases (etiology, symptomatology, imaging and treatment) with provided PVA knowledge by the previous review (*Our reference in the text 1*), one retrospective study with 18 PVA cases (*Our reference in the text 2*); aiming to improve knowledge, bringing novelty and better understanding in all aspects of this visceral venous abnormality.

3. In epidemiological characteristics: The incidence of reported PVAs per year is shown in Figure 1. This is not the incidence, it is more of a number of cases reported each year, please refrain from using the word incidence as it is misleading.

We accept reviewers remark and we have made changes in Epidemiological characteristics section of the manuscript.

Thank to the suggestion. We accept reviewers remark and we have made changes.

4. In Etiopathogenesis, What's the difference between pseudoaneurysm and true aneurysm from trauma?

We agree with the reviewer regarding the phrase of traumatic PV aneurysm and pseudoaneurysm, and that the pharase as stated in the text is a little bit confusing.

Entity traumatic PVA we took from the Laurenzi et al. (Our reference, No1). But the post-traumatic uncommon finding (dilation) of the portal vein has been labeled as a pseudoaneurysm (Our references 69, 70, 71). In order to eliminate ambiguities, we have made changes in the text (Etiopathogenesis section).

5. In Clinical assessment of patients with a PVA, symptomatology and complications, Of all the word symptomatology in this review, can be replaced with either clinical manifestation, presentation, or just presenting symptoms.

Thank to the suggestion. We accept reviewer's remark and we have made changes.

6. The following statement is confusing, please clarify or rewrite it: "PVA with acute portal vein thrombosis are reported in the literature as nearly always being symptomatic, with 91% of patients reporting abdominal pain, 53% reporting fever and 38% presenting with ascites" .

We have corrected according to the reviewer's suggestion.

7. in the text "a 69-year-old female with a congenital PVA did not experience any symptoms", It is diagnosed in a 69-year-old patient, how could you define it is a congenital one?

It is data from our reference No 5 (*Watanabe et al. Portal vein aneurysm with complete spontaneous regression after 10 years using conservative treatment. Clin J Gastroenterol 2020; 13: 940-945*).

8. in the text "Patients with a PVA have a silent laboratory", Does this mean they usually have normal laboratory results? If so, please refrain from using the word 'silent' as it is not easy to understand for readers.

Corrected according to reviewer's remark.

9. Do figure 2a and 2b have a copyright?

The figures are not copyright. Both figures origin from our medical archive; both of them have not been published yet.

10. In the part "Management and treatment of PVA", This part is more of a narration of the treatment in each case, not a concise review. I would preferred reading in the style of a summary according to the categorization of clinical manifeatation e.g., asymptomatic, thrombosis, ruptured, biliopathy, etc. And outcomes following each treatment, it would be more useful for the readers.

Since it is a very rare and specific morphological abnormality, there is no universal approach to the disease for all patients, but the approach is mostly individual and required multidisciplinarity. In accordance with this, we considered it necessary to present all methods of PVA treatment (with a special emphasis on the new methods that have appeared in the analyzed period).

11. in the text "While asymptomatic aneurysms smaller than 30 mm can be clinically observed, surgical intervention may be necessary in large asymptomatic aneurysms (>30 mm)", How did the cutoff of 30 mm come from? Is there any report of the harm of >30 mm in size of PVA in the literature?

Cut off (30 mm), We took from the previous review. (*Our reference 1; Laurenzi et al. Portal vein aneurysm: What to know. Dig Liver Dis 2015; 47: 918-923*).

Also, in Table 1 and Table 2 we presented all patients and showed relation between the size of PVA and complication of it such as thrombosis, biliopathy, etc.

12. Please consider rereading and possible rewriting the manuscript for more of an academic English. The current writing style and the language are difficult to follow.

We sent the text to a professional agency (https://www.englishproofread.com/) checking the correctness of the English language. The received certificate we attached to the manuscript.

13. There is no table 1 provided.

It was a technical problem; in the previous submission process - Table 1 failed. In the next revised submission we will provide both tables (Table 1 and Table 2).

EDITORIAL OFFICE'S COMMENTS

Authors must revise the manuscript according to the Editorial Office's comments and suggestions, which are listed below:

(1) Science editor:

The manuscript has been peer-reviewed, and it' s ready for the first decision.

Language Quality: Grade B (Minor language polishing)

Scientific Quality: Grade D (Fair)

(2) Company editor-in-chief:

I recommend the manuscript to be published in the World Journal of Clinical Cases. Before final acceptance, when revising the manuscript, the author must supplement and improve the highlights of the latest cutting-edge research results, thereby further improving the content of the manuscript. To this end, authors are advised to apply a new tool, the Reference Citation Analysis (RCA). RCA is an artificial intelligence technology-based open multidisciplinary citation analysis database. In it, upon obtaining search results from the keywords entered by the author, "Impact Index Per Article" under "Ranked by" should be selected to find the latest highlight articles, which can then be used to further improve an article under preparation/peer-review/revision. Please visit our RCA database for more information at: https://www.referencecitationanalysis.com/.

Corrected according to the suggestion.

At the end, we would like to thank for patience, time and useful suggestions that helped us to improve our review article.
We hope that in this revised form it is going to be acceptable for your respected journal.

With deepest respect, MSc. MDAdmir Kurtcehajic
On behalf of all authors.