## **Peer Review File**

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Reply to comments

Major

Comment 1: As to the systemic literature search, please describe the search terms you used.

Reply 1: The search item gallbladder adenomyomatosis was added.

Changes in the text: Page 4, line 10

Comment 2: It is recommended that the classification of adenomyomatosis include the complex type, which is a coexistence of segmental and basal types. Furthermore, it should be mentioned that the segmental type with its segment near the neck can be confused with the diffuse type.

Reply 2: We agreed with the advice and added in the text accordingly.

Changes in the text: Page 5, line 9-11

Comment 3: In the selection of images, authors should discuss the images used for follow-up as well as for differential diagnosis, respectively.

Reply 3: The required information was added in the selection of images section as advised.

Changes in the text: Page 8, line 19-20

Comment 4: As to management, it is too complicated to understand, it should be listed for each type of GA. It could be more practical to use diagrams such as algorithms.

Reply 4: A proposed algorithm for management of GA was added as suggested.

Changes in the text: Page 10, line 8-9, Fig. 8 was added

Comment 5: As to therapy, prophylactic cholecystectomy for all segmental types and diffuse types cannot be acceptable. I think a few more conditions should be added for candidates for cholecystectomy. For example, segmental type GA cases with abdominal symptoms, suspicious of concomitant GC, difficult diagnosis of GC due to complicated with gallstones, concomitant with anomalous arrangement of pancreatobiliary system are indications for surgery.

Reply 5: We have changed the phrase "should be offered" to "may be considered" to avoid routine prophylactic cholecystectomy for segmental and diffuse GA. We also added the presence of anomalous pancreatobiliary junction (BPJ) as an indication for surgery.

Changes in the text: Page 3, line 17, Page 9, line 23-24, Page 10, line 1 and line 6-8, references 42 and 43 were also added

Comment 6: Conclusion should include answers for the key questions that had been picked up.

Reply 6: A few sentences were included at end of conclusion part to address the key questions picked up.

Changes in the text: Page 10, line 22-24 and Page 11, line 1-3

Comment 7: Some data suggest that GCs arise from not only distal part of the segmental ADM but just above the fundal ADM. (Journal of Medical Ultrasonics. Published: 11 December 2019. https://doi.org/10.1007/s10396-019-00989-5)

Reply 7: We have added this piece of information as suggested.

Changes in the text: Page 8, line 23-24 and reference 37 was added

## Minor

Comment 1: As "USG" usually stands for ultrasonography, "US" is recommended as an abbreviation for ultrasound.

Reply 1: All USG changed to US as suggested.

Changes in the text: US replaced USG throughout the text and tables.

Comment 2: For Figure 1, as the left side of the presented specimen seems to be damaged, this case does not seem to be an appropriate case. The type of GA classification needs to be stated.

Reply 2: Sorry that we did not have more representative histology slide than this one. The photo illustrated a fundal type GA. The gross specimen (Fig. 1) was not damaged. Rather, it was trimmed to illustrate the exact field as the histology photo (Fig. 2).

Changes in the text: Changes in the figure legends for Fig. 1 and Fig. 2.

Comment 3: For Figure 5, multiple small cysts corresponding to RAS should be mentioned. Since the polypoid lesion is accompanied by the innermost hyperechoic boundary layer, this lesion is considered to be locally thickened wall of adenomyomatosis. The presentation of US images of all three types are preferable.

Reply 3: Legend for figure 5 has been amended. Additional US images of segmental type and fundal type of adenomyomatosis were appended.

Changes in the text: Fig. 5 expanded to Fig. 5 a, b and c for different types of GA and figure legends were amended accordingly.

Comment 4: In this review, "comet-tail" artifacts are introduced as typical US findings corresponding to RAS containing calculi or crystals, but small cysts themselves can also produce "comet tail" artifacts such as hepatic hamartomas. "Triangle sign" should be mentioned as typical signs for segmental type GA.

Reply 4: Comet-tail artefact is a reverberation artefact on grey scale ultrasound which occurs when two closely packed echogenic interface are struck by ultrasound beam. This is a typical finding of gallbladder adenomyomatosis (as the aggregates within the RAS act as the echogenic interface), but the phenomenon is not limited to gallbladder adenomyomatosis. Other examples with aggregate serving as reflective interface within small cystic lesions producing this artefact include milk of calcium cyst in the kidneys and biliary hamartoma in the liver. This explanation was added in the text. Sorry that we were not aware of the Triangle sign and could not find it out from the literature.

Changes in the text: Page 6, line 22-24 and Page 7 line 1-3

Comment 5: Authors should elaborate on what findings could be useful to differentiate from GC on PET.

Reply 5: On 18-fluorodeoxyglucose (18 FDG) PET scan, GA typically shows no significant uptake (SUV < 2.5) while GC is usually hypermetabolic. However, GA with inflammatory reaction may also exhibits increased FGD uptake and give rise to false positive result. PET scan may be helpful to exclude a GC when there is no significant tracer uptake at the lesion. This elaboration to differentiate GA from GC was added in the text.

Changes in the text: Page 8, line 8-12