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Dear Editor:

We are pleased to resubmit for publication the revised version of MS No. 24359 "Gallstone ileus associated with impaction at Meckel's diverticulum: Case report and literature review." We appreciate the constructive criticisms of the Editor and the reviewers. We have addressed each of their concerns as outlined below.

The most substantial revision concerns the length of the discussion. Following the reviewer's advice, we have pared down the length approximately 30%. This was accomplished primarily by condensing the discussion of literature reviews on gallstone ileus with the focus on larger studies. In addition, we have added a more comprehensive discussion of surgical approach to Meckel's diverticulum to the discussion as requested by the reviewers. Specific comments are addressed below.

## **REVIEWER COMMENTS:**

**1.** According to the manuscript the diagnosis of bowel obstruction was delayed, and correspondingly the presentation to a surgeon? Ultrasound and clinical investigation may not bring up the diagnosis of a gallstone ileus but of bowel obstruction?

This patient presented to us as a transfer from an outside hospital (OSH). At the OSH the diagnosis of bowel obstruction (SBO) was made by CT of abdomen and pelvis. However, Gallstone ileus was not suspected by providers at OSH based on clinical presentation and CT findings. As mentioned in the discussion, clinical presentation of gallstone ileus is variable and insidious making it difficult to diagnosis based on clinical signs and symptoms. The most sensitive imaging is CT however gallstone ileus is often diagnosed at laparotomy. At our institution the final diagnosis of SBO from gallstone ileus was made by CT.

The risk for recurrence will depend on the expected survival time, with higher risks for younger patients, and lower risks for elderly patients with severe co morbidity, thus age should be considered to select the procedure with the best risk-benefit ratio for the patient?

We did not comment on age as factor for selecting a procedure to minimize risk of recurrence. The reasons are multifold. Gallstone ileus is generally an illness associated with the elderly. The literature has not shown a difference in recurrence rates between one-staged and two-staged procedures. And, as shown in our review of the literature, recurrent gallstone ileus has been shown to be safely managed by repeat enterolithotomy or bowel resections. The morbidity and mortality of the combined procedure is high and should be considered against the overall stability of the patient. For example we provide that several reviewers have shown a higher American Society of Anesthesiologists Class score to be related to worse outcomes after one-stage treatment. This score assesses a patient's fitness for surgery based on their hemodynamic stability and presence of systematic illness. However, this score does not incorporate age as a factor. Therefore, we believe a younger but sick patient, should still undergo a two-stage procedure despite their age and as such we have not posited age as a factor in consideration of operative technique.

In table 1 all figures are summed up, and the mean percentage is presented. However in regard to the huge variances this may not be justified and is misleading. The figures of the studies with hundreds of patients may be more relevant

We appreciate your suggestions for the table and have changed it accordingly.

**2.** The article by Lamba, Shi, and Prabhu describes as case of gallstone ileus with impaction at Meckel's diverticulum. This is obviously a very rare occurrence, but nonetheless of interest. The case report is well written, and the authors review nicely both gallstone ileus. There are a few minor points: It is surprising that '25% of mechanical bowel obstructions in patients over 65 years of age' are caused by gallstone ileus. I would seriously doubt that. The discussion section could be shortened.

We have provided several references to attest to this percentage, which may be specific to the United States (US) as all of the literature citing this percentage is from the US.

I would delete the 'total' in table 1, since patients cohorts overlap (there is also a typo in the legend: Mmortality).

We appreciate your suggestions for the table and have changed it accordingly.

3. Very uncommon condition. Report of a patient with gallstone ileus associated with gallstone impaction in the Meckel's diverticulum. There are only 3 other similar reports in the literature. However, the abstract, discussion, and conclusion are almost entirely dedicated on gallstone ileus- a much more common condition. I suggest the authors should focus on the gallstone impaction in the Meckel's diverticulum.

We have expanded the discussion to include a discussion of management of complicated Meckel's Diverticulum including the options of enterolithotomy, diverticulectomy, or segmental resection.

The title is not clear. A suggestion: "gallstone ileus associated with gallstone impaction in the Meckel's diverticulum: Case report and literature review."

We appreciate your suggestions for the title and have changed it accordingly

**4.** This is a report on a very interesting and uncommon case with gallstone ileus associated with stone impaction in the Meckel's diverticulum. The paper is well written, and there have been only 3 previous reports on this rare condition. The discussion is too long and could be shortened, more focusing on impaction of the stone rather than general gall stone ileus. In addition, the description that "25% of mechanical bowel obstructions in patients over 65 years of age" is hard to believe. This part should be supported by several other literatures or should be deleted.

We have both shortened our discussion of gallstone ileus and expanded the discussion of complicated Meckel's diverticulum. And, we have provided several references to attest to this percentage of gallstone ileus in the elderly, which may be specific to the United States (US) as all of the literature citing this percentage is from the US.

Thank you, Harveen K. Lamba, MD