

## Peer Review File

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### Reviewer A

The authors described an interesting but relatively rare pathology in general surgery. The jejunal diverticulum was reported to be less than 1-4% in the literature. The authors provide three cases with different managements.

I do believe the sharing of these experiences can provide a better insight among us general surgeons and an improved quality of care for the patients.

The author suggested an indication of multiple (> 3) JD for surgical management.

Much appreciated if the author can provide further information as below:

### Case 1

- 1 Could you provide the rationale for bringing the patient to OR immediately?
- 2 It was described as a benign physical examination with mild leucocytosis and micro perforation. If it is believed to be a micro perforation, would conservative management be an option for this patient at initial admission?
- 3 Is there any change in vitals or physical exam prior to going to OR?

**Reply 1:** The rationale for taking the patient to the operating room versus conservative management was because of persistent severe pain not relieved by pain medication and associated tachycardia. Yes, the CT scan did show a micro perforation/localized perforation, but the physical exam did reveal significant pain and prior to the operation, she was having tachycardia. We mentioned normal bowel sounds and no peritoneal signs, which are both true but should have mentioned her significant left upper quadrant tenderness to palpation.

**Changes in the text:** We have modified our text to add the significant left upper quadrant tenderness on Page 3, Line 84, and the rationale for bringing the patient to the OR on Pages 3-4, Lines 94-97.

### Case 2

I totally agree with the surgical management in this patient.

- 1 Do you think there is a possibility of genetic components in this patient due to the presence of multiple diverticulum in small and large intestine, such as MYH associated polyposis?

**Reply 2:** Yes, there is possibly a genetic component to this case. MYH associated

polyposis could be a possibility. It was not specifically tested for in this particular case, but we do agree of the genetic component and the possibility. It will be information we pass on to the patient's primary care physician as this may have a significant bearing if she should develop lesions elsewhere as well as the possibility for genetic counseling for other family members, should she have a genetic component.

**Changes in text:** N/A

### **Case 3**

- 1 Do you mind commenting on the cause of fascial dehiscence?
- 2 How long was the segment being resected?
- 3 Do you think there is a relationship between the long segment resection (s/p SB resection 4 months prior to presentation) and the possible malnutrition?
- 4 Any suggestion to prevent the fascial dehiscence?

**Reply 3:** The patient had several medical comorbidities and was on chronic steroids which may have been contributory to the dehiscence. The segment resected measured approximately 75cm long. Yes, there is a likely a connection with his previous surgery and his malnutrition in addition to his multiple comorbidities and chronic steroid use. Suggestion to prevent the dehiscence may be to start him on TPN early/post op. He presented in an urgent manner so pre-op nutrition was not able to be performed electively.

**Changes in text:** We have modified our text to convey this on Page 6, Line 159 adding in the “75cm long” segment resection and on Page 6, Lines 154-158.

### **Discussion**

- 1 What do you think about the role of MRI (line 198) in diagnosis of JD?

**Reply 1:** The role of MRI in the diagnosis of JD is helpful on the non-emergent basis and is usually an incidental finding. It is described in the literature as a possible imaging modality and if CT scan proves noncontributory. CT scan however seems to be more widely described and used.

**Changes in text:** We have modified our text to convey this at Page 7, Lines 185-188.

- 2 If you think patient 1 and 3 are stage 1a, could you explain why surgical approaches were employed?

**Reply 2:** Surgical approaches were employed for patient 1 and 3 because of their clinical presentation, one with unrelenting pain on abdominal exam and one with

significant hypotension and signs of early sepsis after meeting SIRS criteria.

**Changes in text:** We have modified our text to convey this at Page 7, Lines 204-206 and Lines 210-216.

3 Could you explain your thought process of the suggested indication of >3 JD for surgical management, except from Schloericke et. al?

**Reply 3:** The suggested indication for >3 JD needing a segmental resection is from Schloericke et al. Their rationale was not well described in their paper other than the description of their operative methods in 7 out of 9 patients who underwent a segmental resection for intraoperative findings including peritonitis, multiple diverticula, and perforation. It can be inferred that leaving a segment with several diverticula will increase the risk of complicated disease such as peritonitis or perforation. In 2 of the cases we described, these patients had previous surgery for their jejunal diverticula but recurred with disease requiring operative intervention. Which raises the question that if segmental resection was done initially for the multi-diverticula disease, perhaps they would not have required a second surgery. This is supported by Harbi et al in their proposed management algorithm for definitive treatment (PMID: 29133083).

**Changes in text:** We have modified our text to convey this at Page 7, Lines 212-218.

4 Is there any data or expertise experience from you prompting this suggestion?

**Reply 4:** The recurrence rate is the concern; the actual known percentage is not well known in the literature and more data needs to be collected on this. Experience in this rare condition is limited to these cases and an additional one seen several months later in another patient (which was not included in this case series because it was a case seen long after this manuscript was written). However, the majority of the patients had previous resection and had recurrence requiring segmental resection.

**Changes in text:** N/A

I appreciate the privilege to review your article.

I do think your sharing is of useful to the literature for a better care of patient with this uncommon pathology.

I appreciate if you could clarify the questions as above.

**Reviewer B**

This is an interesting case report on a rare cause of abdominal pain. The followings are my comments

#1. Line 77-79 ,195-196. With the improved endoscopic technique (Refer to PMID:32574171, PMID: 26351451, ...), jejunal diverticulosis is not always a difficult to diagnose now.

**Reply 1:** Suggested wording was adapted and sentence changed to include the improvement of endoscopic technique

**Changes in text:** We have modified our text to convey this at Page 2, Lines 70-72

#2. The discussion is redundant and please concise it

**Reply 2:** The discussion section has been revised as suggested.

**Changes in text:** We have modified our text to convey this at Page 6-7, Lines 163-225.

#3. Line 231-232, it is unclear the summarized result

**Reply 3:** This is to add additional evidence that jejunal diverticulosis is a rare condition with limited data in the literature, the report by Leigh et al only showed 53 case reports within the past decade from a PubMed database query.

**Changes in text:** We have modified our text to convey this at Page 7, Lines 218-221.

#4. Line 228, may refer to PMID: 26351451 for surgical recurrence rate compared with medical recurrence rate.

**Reply 3:** For the sentence referenced by Reviewer 2, “the known recurrence rate of perforated jejunal diverticula is not yet well defined in the literature,” we were referring to the perforation as its own phenomenon. PMID: 26351451 may be referring to bleeding recurrence rate of small bowel diverticular hemorrhage for surgical compared with non-surgical/medical management. What we do know is that hemorrhage of small bowel diverticula is a rare complication that affect only 5%-33% of cases (PMID: 19142169).

**Changes in text:** N/A

### **Reviewer C**

Very good case series report.

All 3 cases are well written.

Good review and applicable information provided in the introduction and discussion. My only suggestion is to re-write the abstract because it is basically copied and pasted phrases from the main manuscript. I would just re-write in other words as a summary. Maybe shorter and more concise.

**Reply 3:** The abstract has been revised as suggested.

**Changes in text:** We have modified our text to convey this on Page 2, Lines 40-53.