76169 - Answering Reviewers

Specific answers concerning the Reviewers' comments are <u>included in the text of</u> the manuscript. The answers are in <u>red letters.</u>

<u>Reviewer's # 1 comments</u> (number ID:04152258): *Please see my comments. major revision are needed. the article is missing much needed ct, mri imaging images.*

ANSWER – COMMENT: PAGE 9, LINES 10 - 14

Imaging examinations: In patient 6, the computed tomography (CT) revealed partial small-bowel obstruction at the level of the ileocolonic anastomosis and anastomotic stricture for patients 1–5. Colonoscopies demonstrated tight benign anastomotic stenoses that were not traversable with the pediatric colonoscope. Preoperative evaluation by CT scan and intra-procedural assessment was performed to assess the length and degree of all strictures. Regarding the necessity of Magnetic resonance imaging (MRI) for the evaluation of the stricture's length, colonoscopy with injection contrast material, and CT scan reveal accurately the data of the anastomotic stricture.^{9,10}

FINAL DIAGNOSIS

All patients had a high-grade stricture (residual lumen, d < 7 mm). The median length of criticisms was 1.83 cm (range 1.5-2.0). Malignancy was ruled out, in all patients, with biopsies for histological examination.

<u>Reviewer's # 2 comments</u> (number ID:05127202): The authors believe that surgical procedures are advanced, which may require statistical analysis to obtain convincing conclusions. The author can focus on the unique value of the operation for this kind of disease.

ANSWER – COMMENT: PAGE 15, LINES 24 – 28

PAGE 16, LINES 1 - 13

One of the originalities of our study is that we evaluate the efficacy, feasibility and safety of the NAGI-LAMS stent in the endoscopic management of symptomatic short benign PAICSs. We report a life-saving technique not previously documented, the unlabeled use of NAGI-LAMS stent and the use of technology to improve patient outcomes. The saddle length of this NAGI stent is longer than AXIOS stent, (30mm vs. 10mm), and it may therefore be more optimal for longer (>1cm) luminal GI strictures.^{5,10,12} Another difference between the NAGI-LAMS and the AXIOS-LAMS is the different sizes of stent diameter (D = 10, 12, 14, 16mm vs. 10, 15mm).^{10,12} Stent diameter and length selection are crucial for the clinical success of the procedure (Figure 1). Given these LAMS parameters (length and diameter) of LAMS, the NAGI-LAMS stent would be effective for strictures < 30mm in size and AXIOS-LAMS stent for strictures < 10mm in size.^{5,11,13} The anchoring effect of the NAGI stent stems from the bi-flanged design rather than exerting lumenapposition.¹² Importantly the NAGI stent delivery catheter can be introduced via colonoscopy, while the AXIOS stent shorter delivery catheter can only be delivered either via a therapeutic forward-viewing gastroscope or echoendoscope.^{4,5,12,17}

Our study focuses only on the endoscopic management, by bi-flanged metal stent, of short (median length 1.8 cm) benign ileo-colonic anastomotic strictures and not on the choice of another type of treatment (e. g. re-surgery). In the literature there is not concrete evidence on the preferability of treatment based on long term results. According to the literature, the average time of surgery delayed by endoscopic management was 6.45 years. So, the endoscopic management (metal stent, balloon dilatation, etc.) spaces out the need for surgery for a significant period of time. Most of these benign anastomotic strictures are simple narrowing's, shorter than 2 cm that can be successfully treated by endoscopic alternatives. Only the 28% of these patients will require surgical correction and this could be technically difficult, with the possibility of a colostomy. For these reasons, a part of resurgery, bi-flanged metal stent could represent an alternative therapeutic option for this specific type of luminal strictures.^{31,32}

The low sample size in our study and the absence of comparative groups are significant limitations that should be acknowledged. Although our results are concordant with the current literature, there are limitations considering the three months of stents' sojourn and the short duration (7 months) of their follow-up time. More prospective multicenter trials are required to develop guidelines for the utility of NAGI-LAMS in the endoscopic management of benign ileocolonic strictures. Further data are needed to validate the long-term safety and efficacy of BFMS (NAGI-LAMS) in treating luminal GI stenosis.

REFERENCES

- **9.** Tonolini M, Bareggi E, Salerno R. Endoscopic stenting of malignant, benign and iatrogenic colorectal disorders: a primer for radiologists. *Insig Imag* 2019; 10: 80-94.
 [PMID: 31456127 DOI: 10.1186/s13244-019-0763-1]
- 10. Malgras B, Lo Dico R, Pautrat K, Dohan A, Boudiaf M, Pocard M, Soyer P. Gastrointestinal stenting: current status and imaging features. *Diagn Interv Imaging* 2015; 96: 593-606. [PMID: 25953525 DOI: 10.1016/j.diii.2015.04.001]
- 31. Liu Z, Wang G, Yang M, Chen Y, Miao D, Muhammad S, Wang X. Ileocolonic anastomosis after right hemicolectomy for colon cancer: functional end-to-end or end-to-side? *World Journal of Surgical Oncology* 2014; 12: 306. [DOI: 10.1186/1477-7819-12-306]
- 32. Lian L, Stocchi L, Remzi FH, Shen B. Comparison of Endoscopic Dilation vs Surgery for Anastomotic Stricture in Patients with Crohn's Disease Following Ileocolonic Resection. Clinical Gastroenterology and Hepatology 2017Aug; 15(8): 1226-1231. [DOI: 10.1016/j.cgh.2016.10.030]