

Response letter

Reviewer #1:

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Minor revision

Specific Comments to Authors: Dear authors,

1. In abstract in result section “lower total dose of steroid” section, 0 mg vs 0 mg is given in bracket. Kindly correct it.

In this study, the preoperative steroid dose was 0 mg in most cases. Therefore, the median value would be 0 mg in both groups. However, to address this point that might cause confusion among readers, we added the range of the dose in the text. Thank you for pointing this out.

2. Higher maximum stoma drainage concentration – word concentration needs to be replaced by volume here.

Thank you for alerting us to this error. We changed “concentration” to “volume” everywhere in the article.

3. It is interesting to know about the way you create intestinal stoma, in our own experience we create cruciate incisions over rectus sheath and after entering peritoneum, two fingers are used to dilate the abdominal wall trephine to check adequacy, then after four corners of anterior rectus sheath (created by cruciate incision) are sutured with absorbable sutures to ileal wall and margins of ileum to skin after adequate pouting. In our experience for temporary stomas this is good enough diameter and hardly we have found stoma obstruction at abdominal wall level. This comment is just to share our experience with you. This is are the only minor revisions from my side. Thank you for sharing your work.

Thank you indeed for describing your experience with a different technique. We are aware that our technique is not standard.

Reviewer #2:

Scientific Quality: Grade D (Fair)

Language Quality: Grade B (Minor language polishing)

Conclusion: Major revision

Specific Comments to Authors: This is a well written manuscript about Stoma outlet obstruction (SOO) in Ulcerative Colitis (UC) surgical patients. However, the retrospective nature of the study (12 years period) appear as a strong limitation and some points should be addressed:

1. Materials and Methods: "Cases without CT images, regardless of a clinical presentation suggesting SOO, were deemed not to have SOO". As reported it appear as a bias: as SOO is a clinical condition and complication, and clinical examination can be almost enough to diagnose SOO. Furthermore, during a 12 years retrospective period, in absence of a specific clinical protocol of a prospective research, who tell the readers that every patient with symptoms and signs of SBO undergone CT scan!? M&M section should clarify this aspect, and it is necessary to report how many patients showed clinical SOO in absence of a CT scan performed.

Thank you for pointing the limitations of our SOO definition out.

In the non-SOO group, nine patients did not have a decompression tube inserted, but the SBO symptoms improved with intravenous fluid resuscitation only. Therefore, we cannot rule out the possibility that these patients had SOO.

However, since some of the cases that showed similar improvements were diagnosed with ileus on CT images, we considered it difficult to diagnose SOO based on clinical symptoms alone.

In response to your important remark, we have added the number of ileus cases, SBO cases, and cases with SBO symptoms of unclear cause observed in the non-SOO group in the results section.

2. M&M: "A loop ileostomy was consistently created at the marked site of the lower-left quadrant". I believe it is one of the most interesting issue of this research: in performing an IPAA, the small bowel has to follow the superior mesenteric vessels cord, and this is on the right side of the abdominal median line. So to avoid traction usually a right loop ileostomy is necessary. I believe the

data about IPAA group are to be more clearly reported: a new table reporting all the surgical and clinical data about this subgroup of patients should be created to let the reader able to easily understand if the different reconstruction had a role in the development of SOO. Furthermore, I hope it is possible for you to add also the mean distance of the ileostomy from the pouch inlet (or from Treitz ligament) and the percentage of IPAA dehiscence in this subgroup as well as the precise way SOO was solved.

As you pointed out, an ileostomy on the left side is uncommon. Based on our hospital's experience, it is our impression that the postoperative complications do not change with stoma sidedness. However, as you rightly state, it is important to clarify this. Therefore, we have added a table and further comments on this aspect.

3. "higher maximum stoma drainage concentration" please clarify: is it the maximum output reported in the inpatients chart? At which post-operative day? I believe the mean output/24h is more appropriate in order to answer the whole question.

This is the maximum stoma output as reported on the inpatient chart.

As you pointed out, the average daily output seems to be clearer, but since the reporting period for charts varies considerably from patient to patient, we considered only the day with the maximum drainage.

However, it is important to describe on which postoperative day this was recorded, so we added it to the Table 2 and 5.

4. "Finally, the anterior and posterior sheaths of the rectus abdominis were sutured to reduce the thickness of the rectus abdominis. They were then fixed to the serosa and muscle layer of the intestine using four stitches". This procedure is not standardized and not performed in any surgical Center world-wide, so I believe the incidence of other postoperative complications of the ileostomy (i.e. ileostomy prolapse, incisional peristomal hernia, specific complications found at operation of ileostomy closure) should be reported.

Thank you for your advice.

You are quite correct that the stoma construction procedure at our hospital is not

standardized.

However, compared to common procedures, we have not observed more stoma-related complications than what is reported in the literature. Furthermore, we do not see particular problems during ileostomy closure.

We have added the incidence of ileostomy prolapse and incisional peristomal hernia in our patients to the discussion section.

5. Discussion: "A few studies have reported that diverting the stoma reduced.....". in this position "the" is not necessary.

This phrase has been reworded in its entirety.

6. Discussion: "The causes of SOO have been reported as torsion, adhesion below the abdominal wall, or stenosis of the penetrating part of the ileostomy[18,24]. In this study, it was difficult to evaluate torsion or adhesion below the abdominal wall penetrating part of the ileostomy. This is because CT images were not taken in the cases that did not have SBO and it was not possible to make comparisons between the two groups". This explanation you give is really unconvincing. Please try to revise the data and to report in results section or in tables the percentages of the more probable causes of SOO in your cohort, even in relationship to the way SOO was solved.

It is difficult to accurately compare adhesions and torsions between the groups since not all patients underwent CT imaging, and we could not inspect the abdominal cavity in all cases.

However, we reviewed the surgical records of those patients in whom we could inspect the intraperitoneal cavity (e.g., during stoma reversal) and compared them between the groups to the extent possible.

In addition, we added this point to the results section and Table 2.

7. Discussion: "Therefore, it is expected that the surrounding pressure will easily affect it, and it will be particularly noticeable in the penetration stage. If high-output stomas appear in such situations, even if there is no apparent stenosis, the pressure tends to cause passage obstructions in the penetrations, which can result in SOO". Please clarify the last sentence: which pressure do you mean?

We apologize for the incomprehensible text.

This sentence means that at the site where the ileum enters the abdominal wall, relative stenosis occurs due to external pressure even if there is no apparent stenosis, and high-output stoma cause passage obstructions in the abdominal wall.

The text has been revised accordingly.