International Journal of Surgery 71 (2019) 174

Contents lists available at ScienceDirect

International Journal of Surgery

journal homepage: www.elsevier.com/locate/ijsu

Invited Commentary

Commentary: "Closure of mesenteric defects is associated with a higher incidence of small bowel obstruction due to adhesions after laparoscopic antecolic Roux-en-y gastric bypass"

We read with interest the recently published article by Nuytens et al. 'Closure of mesenteric defects is associated with a higher incidence of small bowel obstruction due to adhesions after laparoscopic antecolic Roux-en-Y gastric bypass: a retrospective cohort study' [1].

Small bowel obstruction (SBO) is a commonly observed complication following Laparoscopic Roux-en-Y Gastric Bypass (LRYGB) with a quoted incidence of between 0.4 and 8.8% [2]. Internal herniation and severe adhesions represent the first and second most frequent causes of postoperative SBO within the existing literature [3].

The technique of ante-colic gastric bypass has been associated with decreased internal herniation and obstruction rates, when compared to the retro-colic technique as per the meta-analysis by Ayman et al. [2]. This is the technique followed in most of the contemporary literature, *including this recent study by Nuytens* et al. *A number of papers have also identified a correlation* between routine closure of mesenteric defects with decreased incidence of SBO. Most notably, Stenberg et al.'*s* multicentre trial highlighted the benefits of closure of the mesenteric defects with dramatically decreased incidence of internal herniation. They did note more frequent kinking of jejunojejunostomy within 30 days of the operation in this study and also reported a slight increase in adhesional SBO after 30 days [4].

Internal herniation is a frequently debated and well-researched subject within bariatric literature. There is a comparative paucity of literature considering the effects of mesenteric defect closure on incidence of adhesional obstruction. A large retrospective study by Elms et al. identified adhesions to be the most common cause for reoperation secondary to SBO, across a cohort of patients who underwent closure of both internal spaces. While they found the incidence of internal hernia to be greatly reduced from previously published data, this highlighted the resultant increase in adhesional SBO in this patient group, accounting for nearly half of all obstructions.

Nuytens et al.'s recent study has further captured the burden of post-operative SBO from adhesions following closure of mesenteric spaces. Factors causative for adhesions following LRYGB are certainly worthy of further investigation, with emphasis upon technique of mesenteric closure and type of sutures used. Similarly, more work is required to truly quantify the incidence of such post-operative adhesions to allow balanced decision making and appropriate counselling for patients. With the existing literature currently leaning towards closure of mesenteric defects, this paper certainly highlights the complexity of the issue. Both as a cause of bowel obstruction and chronic abdominal pain, are adhesions a more significant postoperative risk than previously recognized?

As noted by Stenberg, future studies should focus on optimal method for closure. We must aim to strike an appropriate balance between attempting to prevent both internal hernia and adhesional obstruction. More high-quality research is needed in this area, considering not only the incidence of bowel obstruction but also the impact of chronic pain associated with adhesions and associated patient reported outcome measures.

Provenance and peer review

Invited commentary, internally reviewed.

Declaration of competing interest

None.

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DOI of original article: https://doi.org/10.1016/j.ijsu.2019.09.017

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https://doi.org/10.1016/j.ijsu.2019.10.005

Received 2 October 2019; Accepted 4 October 2019

Available online 09 October 2019