Techniques in Coloproctology (2019) 23:1179–1180
https://doi.org/10.1007/s10151-019-02108-5

CORRESPONDENCE

Reply to 'Comment on mesopexy and mesoplasty in sigmoid volvulus recurrence'

S. S. Atamanalp[1] · **R. S. Atamanalp**[1]

Received: 11 October 2019 / Accepted: 29 October 2019 / Published online: 11 November 2019

Dear Sir,

We thank Karadeniz [1] for his comments on our paper and we appreciate his opinions.

In emergency surgical treatment of sigmoid volvulus (SV), a volvulus-reducing procedure including mesopexy or mesoplasty, or preferably sigmoid colectomy is suggested in selected fit and nonelderly patients with viable bowel, while colopexy is accepted as a relatively unfavorable method [2]. Sigmoid colectomy is the most effective both in distorting the dolichosigmoid and reducing recurrence. The procedure is associated with 1–10% mortality, 15–25% morbidity, and 0–1% recurrence rates [3]. Nevertheless, if sigmoid colectomy is not suitable a colopexy or mesopexy may be used.

Colopexy is performed using a single or preferably multiple fixation sutures between anti-mesenteric sigmoid colon and abdominal wall (Fig. 1a). This procedure, particularly the multiple fixation method, is relatively easy and reasonably successful for volvulus preventive, associated with mortality, morbidity, and recurrence rates of 1–9%, 10–20%, and 0–36% respectively [3, 4]. We prefer mesopexy to colopexy and we have no experience with colopexy. In our opinion, in colopexy a space is created between the sigmoid colon and the abdominal wall, which may cause an internal hernia. Mesopexy is a more difficult method, but satisfactorily prevents recurrence [4]. In our experience, when multiple fixation sutures are placed like a horseshoe, the sigmoid mesentery is adequately fixated, which minimizes the risk of recurrence and internal hernia (Fig. 1b). Nevertheless, in this technique, the careful placement of the sutures preserving the mesenteric vessels is essential. In our 1026-case series, among 474 patients treated with surgery, 57 patients had mesopexy (12.0%) with 5.3% mortality, 21.1% morbidity (including no bowel ischemia or gangrene), and 13.3% recurrence. Due to the relatively high recurrence rate after a single- or two-fixation suture technique used in the early years, we now prefer multiple fixation sutures in mesopexy. In the mesoplasty procedure (Fig. 1c) the sigmoid mesentery is cut longitudinally and sutured transversely to modify dolichosigmoid adequately. This method is associated with 1.3–6.6% mortality, 0–13.3% morbidity, and 0–12.5% recurrence [3, 5]. The mean operating time is reported to be about 53 min [5], which is shorter than that of sigmoid colectomy. Although we have no experience with mesoplasty, we believe this procedure is both more difficult and takes longer than mesopexy. Additionally, it is associated with a relatively high risk of complication, including mesenteric vessel injury. For these reasons, if possible, we recommend sigmoid colectomy in the prevention or reduction of SV recurrence, while mesopexy is our second choice.

We thank Dr. Karadeniz again for his interesting comments.

✉ S. S. Atamanalp
ssa@atauni.edu.tr

[1] Department of General Surgery, Faculty of Medicine, Ataturk University, 25040 Erzurum, Turkey

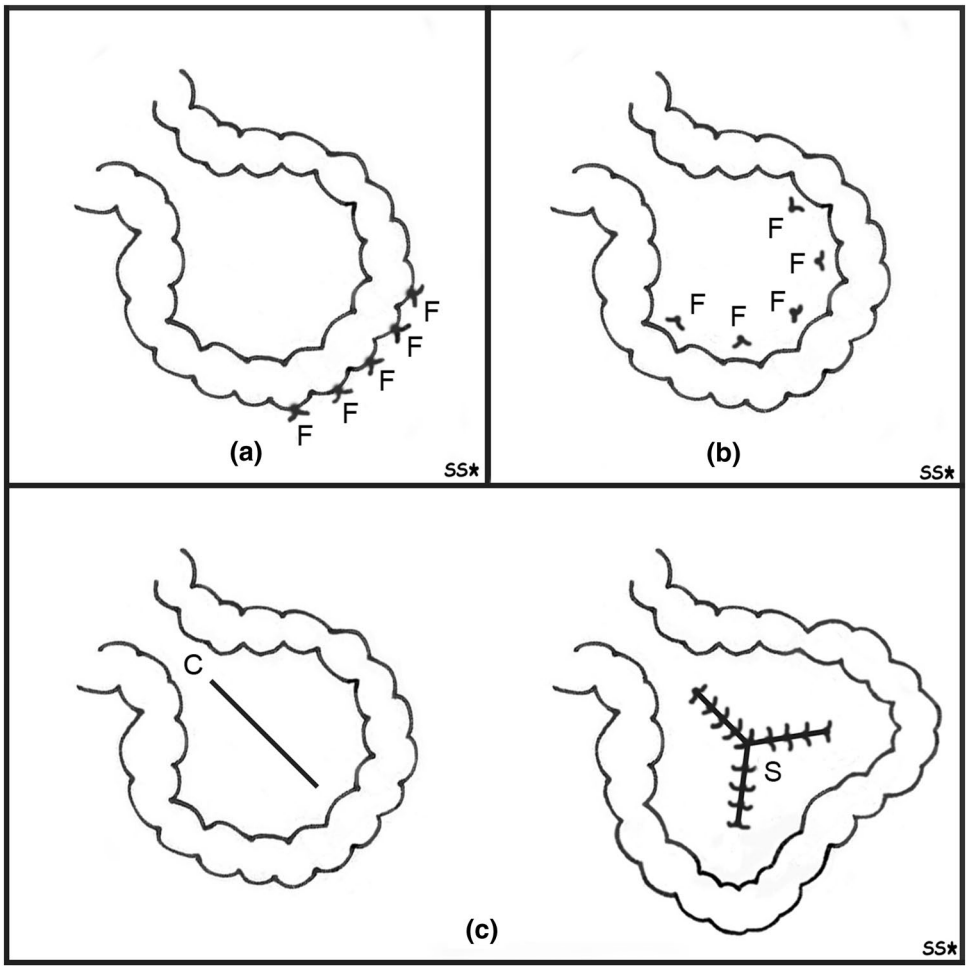

Fig. 1 Schematic diagrams showing **a** colopexy, **b** mesopexy, and **c** mesoplasty. Fixation sutures (F), longitudinal cut (C), and transverse suturing (S)

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical approval This article does not contain any studies with human participants performed by any of the authors.

Informed consent For this form of study, formal consent is not required.

References

1. Karadeniz E (2019) Comment on 'Mesopexy and mesoplasty in sigmoid volvulus recurrence'. Tech Coloproctol. https://doi.org/10.1007/s10151-019-02084-w
2. Atamanalp SS, Atamanalp RS (2019) Sigmoid volvulus: avoiding recurrence. Tech Coloproctol 23:405–406
3. Atamanalp SS (2019) Sigmoid volvulus: the first one thousand-case single center series in the world. Eur J Trauma Emerg Surg 45:175–176
4. Samuel JC, Msiska N, Muyco AP et al (2012) An observational study addressing the anatomic basis of mesosigmoidopexy as a rational treatment of non-gangrenous sigmoid volvulus. Trop Dr 42:44–45
5. Akgun Y (1996) Mesosigmoplasty as a definitive operation in treatment of acute sigmoid volvulus. Dis Colon Rectum 39:579–581