



Implication of the low anterior resection syndrome (LARS) score for bowel dysfunction after rectal cancer surgery with symptomatic anastomotic leakage

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Provenance: This is an invited Editorial commissioned by Editor-in-Chief Minhua Zheng (Department of General Surgery, Ruijin Hospital, Shanghai Jiaotong University School of Medicine, Shanghai Minimal Invasive Surgery, Shanghai, China).

Comment on: Hain E, Manceau G, Maggiori L, *et al.* Bowel dysfunction after anastomotic leakage in laparoscopic sphincter-saving operative intervention for rectal cancer: A case-matched study in 46 patients using the Low Anterior Resection Score. *Surgery* 2017;161:1028-39.

Received: 18 April 2017; Accepted: 24 April 2017; Published: 14 June 2017.

doi: 10.21037/ales.2017.05.10

View this article at: <http://dx.doi.org/10.21037/ales.2017.05.10>

Hain *et al.* investigated bowel dysfunction after laparoscopic sphincter-saving rectal resection. To assess the influence of anastomotic leakage (AL) they compared symptomatic AL with asymptomatic leakage and a matched control group without AL after low rectal surgery (1). Assessment of the low anterior resection syndrome (LARS) and postoperative quality of life was performed and scored by the LARS score and the disease-specific questionnaire of the European Organization for Research and Treatment of Quality of Life Questionnaire for Colorectal Cancer (EORTC QLQ-CR29). Data were received of a prospectively maintained database. Overall, out of 432 patients with laparoscopic low rectal cancer surgery 46 patients with a postoperative AL (symptomatic n=23, asymptomatic n=23) were identified between January 2005 and December 2014. Each patient with an AL was matched with all (one or more) similar patients without an AL. The following criteria were used: age (± 2 years), sex, type of neoadjuvant treatment (no treatment or chemoradiotherapy), and type of anastomosis (colorectal stapler anastomosis or hand sewn coloanal anastomosis). All study groups were well balanced with respect to patients, tumor, and surgery characteristics. At least, to avoid any disturbing factors in the postoperative setting all patients had to have restoration of intestinal continuity (no temporary or permanent stoma) with a minimal follow-up of more than 1 year and no ongoing chemotherapy.

The study results demonstrated that patients with a symptomatic AL had impaired bowel function compared with the control group with somewhat greater, though of little consequence, LARS score {median: 30 [23–39] *vs.* 27 [15–34], $P=0.02$ } and worse LARS categories (no LARS in 4% *vs.* 31%, minor LARS in 52% *vs.* 52%, and major LARS in 44% *vs.* 17%, $P=0.004$). In contrast to the patients with a symptomatic AL, the LARS score was not different between the asymptomatic AL group and the control group {median 24 [14–37] *vs.* 27 [15–34], $P=0.70$ }. Multivariate analysis identified as independent risk factors for the onset of impaired bowel function after low rectal surgery the symptomatic AL, neoadjuvant radiotherapy, intersphincteric resection and a hand-sewn coloanal anastomosis. Furthermore, the results of the EORTC QLQ CR-29 questionnaires showed that patients with a postoperative symptomatic AL reported more blood and mucus in stool, frequent bowel movements per day, and frequent urination per day.

The presented results of this study by Hain *et al.* are of relevant clinical importance. With respect to the last two decades most studies about rectal cancer surgery were focused on oncologic results, namely the incidence of loco-regional recurrence rates and the frequency of AL. Postoperative bowel function and postoperative quality of life were secondary outcome parameters and were not accurately evaluated and reported. The presented study

used for the first time adequately assessment instruments for this topic. Hain *et al.* found that patients with symptomatic AL have impaired functional results and that every second patient with a symptomatic AL had major LARS. In contrast to this finding, quality of life and function of patients with an asymptomatic AL can be considered close to those of patients without AL. These results are in good accordance with the everyday clinical work experience. Additionally, the results of this study also showed that independently of the onset of AL nearly 2/3 of our patients are suffering from the underestimated LARS. Overall, the presented data gave good reasons to start postoperative early evaluation of the LARS and initiating early postoperative treatment. Future studies should be initiated to identify and establish treatment modalities to improve long-term results of bowel function and quality of life after rectal surgery. This would best serve the interests for our patients.

doi: 10.21037/ales.2017.05.10

Cite this article as: Thomusch O. Implication of the low anterior resection syndrome (LARS) score for bowel dysfunction after rectal cancer surgery with symptomatic anastomotic leakage. *Ann Laparosc Endosc Surg* 2017;2:104.

Acknowledgements

None.

Footnote

Conflicts of Interest: The author has no conflicts of interest to declare.

References

1. Hain E, Manceau G, Maggiori L, et al. Bowel dysfunction after anastomotic leakage in laparoscopic sphincter-saving operative intervention for rectal cancer: A case-matched study in 46 patients using the Low Anterior Resection Score. *Surgery* 2017;161:1028-39.