

Laparoscopic ventral rectopexy: Resection or no resection? That is the question...

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In Europe, laparoscopic ventral abdominal rectopexy is currently considered to be the gold standard for the surgical treatment of full-thickness external rectal prolapse and/or rectocele, associated with a lower rate of long-term recurrence (below 10 %), than perineal procedures [1]. However, many studies on conventional abdominal rectopexy (the Orr-Loygue procedure), with full dissection of the rectum, have reported a high risk of postoperative constipation, including both de novo constipation and worsening of preoperative transit disorder, with reported rates ranging from 30 to 50 % [2]. The cause of this postoperative constipation remains unclear, but nerve injuries during extensive posterior rectal mobilization leading to complete denervation might be involved.

D'Hoore et al. reported, in 2004, very good operative and functional results of a new operation: the laparoscopic ventral rectopexy (LVR) procedure, which does not require extensive posterior rectal mobilization [3]. The authors argued that such limited dissection might reduce the risks of autonomic nerve injury and rectal denervation, leading to a lower risk of postoperative constipation. Since 2004, many studies and the literature reviews have reported similar very low morbidity rates, and very low rates of postoperative constipation. For example, after a mean follow-up of 42 months, our study [4] confirmed the low recurrence rate (6 %) observed after such procedures. At the end of follow-up, constipation was improved in 72 % of patients without worsening preoperative disorder.

Moreover, de novo constipation was only induced in 7 % of patients. More importantly, quality of life was also better postoperatively and continued to improve significantly during follow-up.

A systematic review, studying the effect of ventral rectopexy on fecal incontinence and constipation in 728 patients, highlighted a weighted mean percentage decrease of 24 % in the postoperative constipation rate, including a mean rate of de novo constipation of only 14 % [2]. As LVR with preservation of the rectal lateral ligaments appears to combine excellent short-term outcomes and low recurrence rates, this technique quickly gained wide acceptance in Europe for both full rectal prolapse and symptomatic rectocele. For this reason, in European countries, the use of sigmoid resection during rectopexy is today very limited. In USA, on the contrary, laparoscopic resection rectopexy (LRR) remains the standard for treatment of complete rectal prolapse [5].

To date, no randomized study has compared laparoscopic rectopexy with or without resection. For this reason, the paper presented by Formijne Jonkers et al. in this issue of Techniques in Coloproctology, even if limited by its retrospective design, is very interesting [6]. The aim was to compare an American experience of LRR and a European experience of LVR. This study, which included 37 LRR and 40 LVR, with a follow-up of 57 and 42 months, respectively, had three main results. First, reduction in constipation was significant after both operations with approximately the same degree of significance. Second, incontinence rates were also reduced significantly in both groups, to only 15 % after LVR and only 4 % after LRR. However, comparison of the two techniques showed no significant difference ($p = 0.09$), at least in part because of the size of the groups, but probably also because patients were significantly older in the LVR group. So, the first

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conclusion of this study was that both techniques are similar as regards postoperative improvement of continence and constipation. However, there was bad news for Americans because postoperative morbidity was also assessed and results were worse after LRR: Significantly more postoperative complications were observed after LRR than after LVR (9 vs. only 3; $p < 0.05$).

What conclusions can be drawn from this study? My European point of view will be, as we say in French that “la messe est dite”, which means that there is no more discussion: the best operation is LVR, without resection, because with the minimal rectal dissection, reducing nerve injury, postoperative constipation is no longer a problem after abdominal rectopexy. For this reason, adding a sigmoid resection is not justified. In other words, if we observed the same benefit in terms of postoperative continence and constipation with LRR and LVR, why take the risk of performing an associated rectosigmoid resection and colorectal anastomosis? If sigmoid resection has been proposed during LRR to mitigate postoperative constipation due to full rectal mobilization [7], it seems more relevant to avoid full rectal mobilization and in this way obtain a similar low rate of constipation but without resection. Moreover, in rectal prolapse patients with delayed colonic transit, there is no change or worsening after resection rectopexy [8]. Even if no postoperative morbidity directly related to the sigmoid resection was reported in this study after LRR, the higher rate of postoperative complications is an additional argument in favor of LVR. Finally, at the time of laparoscopy, making a Pfannenstiel incision seems more invasive than the full laparoscopic approach without any abdominal incision used for the ventral rectopexy. Recently, Faucheron et al. [9] reported a very large series of 175 LVR with a median follow-up of 70 months. It confirmed the very good results observed with LVR, with a 3 % recurrence rate and only 5 % rate of postoperative complications. Finally, because quality of life is probably more important than anatomic restoration after cure of complete rectal prolapse, Abet et al., reported results of LVR on sexual function in women. This study showed that sexual function

significantly improved after LVR, and reached a normal level (in comparison with a French reference population answering the same questionnaire) [10].

In conclusion, as confirmed by a recent panel of experts, LVR, proposed by D’Hoore 10 years ago, is likely to be, at least for European countries, the operation of choice for complete rectal prolapse [11].

Conflict of interest None.

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