



The role of laparoscopic adhesiolysis in the management of acute small bowel obstruction due to previous surgery

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Adhesions commonly result from abdominal and pelvic surgical procedures and may result in intestinal obstruction, infertility, chronic pain, or complicate subsequent operations. As laparoscopic adhesiolysis produces less peritoneal trauma than does conventional laparotomy and may result in decreased adhesion formation, it may potentially be a good option for symptomatic abdominal adhesion (1). Many studies comparing laparoscopic and open approaches to take down adhesions in cases with small bowel obstruction were reported in the literature. Although results were overwhelmingly in favor of laparoscopic approach with regard to postoperative hospital stay, analgesic intake, oral resumption and sick leave, selection bias could not be avoided in which laparoscopic approach tended to be applied in younger cohort with simple pathogenesis (2,3). A good review article was also published in the literature concluding that laparoscopic adhesiolysis in small bowel obstruction may be the method of choice in selected patients, basically due to selection bias of the reviewed articles (4). The above listed paper entitled '*Laparoscopic versus open adhesiolysis for adhesive small bowel obstruction (LASSO): an international, multicenter, randomized, open label trial*' was intended to eliminate this selection bias by randomizing the patients either to the open or laparoscopy group (5). Inclusion criteria was predetermined to select patients with small bowel obstruction caused by simple mechanisms such as a fibrous band. Five hundred and sixty-six patients were assessed for eligibility and 104 patients were randomly assigned to either open (n=51) or laparoscopy (n=53) group. The primary

outcome includes length of hospital stay and it was 1.31 shorter in the laparoscopic group (open *vs.* lap 5.5 to 4.2 days, $P=0.013$). In addition to the primary outcome, bowel recovery, duration of epidural catheterization and sick leave were significantly better in the laparoscopic group at no cost of increasing morbidity and mortality.

Limitations of this study include the skill level of the participating surgeons because only 2 cases of previous experience of laparoscopic adhesiolysis was required for participation. Larger randomized study is seemingly difficult because it is basically difficult to precisely diagnose the cause of acute bowel obstruction and surgeons' availability in an acute setting. Long-term results including recurrence rate are to be published. These results will help us to understand the realistic role of laparoscopic approach in patients with acute small bowel obstruction. Surgical skill level may affect outcomes of surgery, but it has not been fully studied. In the reported skill accreditation system in Japan, accredited surgeons outperformed non-accredited ones in terms of the duration of operation, complication rate and postoperative hospital stay (6). Complication rate after bariatric surgery reportedly differs in skillful and non-skillful surgeons (7). For the future study of surgical treatment, it may be of great importance to take surgeon's skill level in consideration.

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References

1. Léon EL, Metzger A, Tsiotos GG, et al. Laparoscopic management of small bowel obstruction: indications and outcome. *J Gastrointest Surg* 1998;2:132-40.
2. Szomstein S, Lo Menzo E, Simpfendorfer C, et al. Laparoscopic lysis of adhesions. *World J Surg* 2006;30:535-40.
3. Di Saverio S, Birindelli A, Broek RT, et al. Laparoscopic adhesiolysis: not for all patients, not for all surgeons, not in all centres. *Updates Surg* 2018;70:557-61.
4. Sajid MS, Khawaja AH, Sains P, et al. A systematic review comparing laparoscopic vs open adhesiolysis in patients with adhesional small bowel obstruction. *Am J Surg* 2016;212:138-50.
5. Sallinen V, Di Saverio S, Haukijärvi E, et al. Laparoscopic versus open adhesiolysis for adhesive small bowel obstruction (LASSO): an international, multicentre, randomised, open-label trial. *Lancet Gastroenterol Hepatol* 2019;4:278-86.
6. Mori T, Kimura T, Kitajima M. Skill accreditation system for laparoscopic gastroenterologic surgeons in Japan. *Minim Invasive Ther Allied Technol* 2010;19:18-23.
7. Birkmeyer JD, Finks JF, O'Reilly A, et al. Surgical skill and complication rates after bariatric surgery. *N Engl J Med* 2013;369:1434-42.