Re-operative Single Incision Laparoscopic Surgery: A Feasible Surgical Option in Highly Selected Clinical Setting

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Over the past decade, surgeons tried to find a less invasive surgical approach method compared to multi-port laparoscopic surgery to improve short-term outcomes. These efforts lead to finding newer methods, such as natural orifice transluminal surgery or single-incision laparoscopic surgery (SILS). To date, there have been many favorable studies reporting the potential benefits of SILS over multi-port laparoscopic surgery in terms of less postoperative pain, reduction of morbidity, better cosmetic outcome, and better overall patient satisfaction.¹⁻³

In spite of previous studies, the true benefits of SILS over multi-port laparoscopic approach in major colorectal surgery remain unclear. Moreover, the obvious complexity in manipulating various surgical instruments through a single port requires an adequate learning period. The present study reported the short-term results of re-operative SILS (R-SILS) based on a large patient cohort that underwent primary SILS for colorectal diseases. The authors reported comparative outcomes of R-SILS to multi-port laparoscopic surgery in terms of postoperative complications and length of hospital stay. They also showed R-SILS could be applied to both elective and emergent operations.

As the authors comment as a limitation of this study, all R-SILS were performed by only one fully-experienced surgeon. R-SILS in patients with postoperative complications will defi-

nately require a more proficient set of surgical skills. Currently available literatures on SILS in colorectal surgery have certain limitations that need to be clarified.¹ First, most of the studies were retrospective in nature and based on highly selective patients.⁴ The studies were also very heterogeneous in the range of surgical procedures, equipment/devices used, and patients' characteristics.⁵ Most importantly, SILS is usually performed by highly motivated groups with good SILS skills. So, these favorable results may not be reproducible by the other surgeons. A recent meta-analysis based on 32 studies including 3,863 patients excellently summarized the current status of SILS. In this review, colorectal SILS had comparative outcomes to multi-port laparoscopic surgery in terms of operative time, conversion rate, postoperative complications and mortality. The short-term oncological results of SILS for colorectal cancer were satisfactory including lymph node harvest rates and resection margins. Nevertheless, there are currently no available long-term results comparing the survival rates and recurrence rates.

SILS and R-SILS performed by proficient SILS surgeons may have comparative results to multi-port laparoscopic colorectal surgery. In this setting, SILS could be a feasible and safe surgical option in re-operative colorectal surgery with good surgical outcomes for selected patients. However, to

date, the evidences are far too insufficient to recommend SILS as a widespread approach replacing multi-port laparoscopic surgery, even more so in re-operative settings. Results from presently conducted large RCTs are needed to establish the indications and efficacy for SILS in colorectal surgery.

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