



## **Comparison of One-Stage Managements in the Treatment of Obstructing Left-Sided Colorectal Cancer: Endolaparoscopic Approach vs. Emergency Open Surgery**

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### **Dear Editor-in-Chief**

Colorectal cancer is the third most common cause of cancer-related mortality in the whole world (1). About one-third of colorectal carcinoma patients with acute colonic obstruction mandate emergency surgery (2). Current surgical options include intraoperative lavage, colonic segment resection involved with primary anastomosis, subtotal colectomy, colostomy followed by resection, a two-stage procedure (Hartmann's procedure) and permanent colostomy in advanced stages of the disease (3). Thus, major patients with malignant large-bowel obstruction need an emergency open surgery to relieve the obstruction and resect the tumor. However, temporary or permanent stomas were observed in many patients after the surgery, finally affecting their health-related quality of life (4). For patients with acute left-sided colorectal malignant obstruction, complications in elective surgery would be remarkably reduced than in emergency surgery.

Recently, metallic colorectal stents have been regarded as a tie to get rid of acute obstruction prior to surgery in patients with acute malignant colorectal obstruction (5). Self-expanding metallic stents (SEMS) have achieved worthy clinical success rates (6). The stent-laparoscopy approach was first introduced by Morino et al. (7). SEMS placement is beneficial for the application of laparo-

scopic colectomy (8). In China, SEMS combined with laparoscopic colorectal surgery is still developing, with limited data being available in the literature.

This study aimed to describe our experience with the stent-laparoscopy approach in obstructing left-sided colorectal cancer patients and to compare the outcomes with patients who underwent emergency open colectomies.

From April 2008 to October 2012, surgery related parameters and postoperative complications of 70 patients with left-sided malignant colorectal obstruction who underwent emergency open surgery or SEMS placement followed by laparoscopic surgical treatment (SLAP) were evaluated retrospectively. In the SLAP group, a primary anastomosis was possible in 22 patients and palliation treatment was applied in two patients. The operative time was shorter in the SLAP group (191.1 *vs.* 264.2 min,  $P = 0.02$ ). Tumor size, number of retrieved lymph nodes, duration of hospital stay, cumulative blood loss and pathological stage were similar in both groups. Postoperative complications occurred less in the SLAP group (63.6% *vs.* 75.0%,  $P = 0.02$ ). The gas passage was resumed earlier in the SLAP group (3.2 *vs.* 4.1 days,  $P = 0.04$ ). Patients in the SLAP group had lower incidence of anastomotic leak, ileus and wound infec-

tions. Significantly more successful 1-stage operations were performed in the SLAP group (41.7% vs 66.7%,  $P = 0.01$ ). Follow-up evaluation was completed for 85% of the patients. The minimum follow-up period was 15 months. All the patients in the palliative group died of disease. Of the 70 surgically treated patients, 48 (68.6%) are alive at this writing. In patients with left-sided malignant colorectal obstruction, laparoscopic surgery after SEMS could be safely performed with successful early postoperative outcomes.

Our findings found that the stent-laparoscopy approach was associated with a higher rate of successful 1-stage operations, lower morbidity and shorter operative time, as compared with the open approach. However, this study is limited by the study method. Moreover, the retrospective study design was grounded on a prospectively collected database. Thus, subjective consideration could bias the analysis of the data. A longer follow-up period, a larger size and more homogeneous study groups should be included for future study.

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