



Laparoscopic treatment of obstructive right colon cancer

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Despite the rapid expansion of minimally invasive surgery worldwide and the growing experience in the laparoscopic management of colon cancer high-quality studies on obstructing right colon cancer (RCC) are still lacking. The most recent meta-analysis of Cirocchi *et al.* attempted to shed a light in this field showing no difference in primary outcome—mortality (0.2% *vs.* 5.6%) and anastomotic leak (0% *vs.* 1.9%) and better secondary outcome (overall complication rate, length of incision, blood loss, hospital stay and early mobilization) (1). Despite the promising finding, however, this meta-analysis has several methodological issues and we completely agree with the critical remarks of Kwak *et al.* that the results should be interpreted with a caution (2). In fact, the meta-analysis includes only two studies with 78 patients and does not have enough statistical power, all studies are retrospective with a high risk for selection and publication bias. Recently, Jackson *et al.* critically addressed the assumption that meta-analysis increase the statistical power (3).

The problem is additionally complicated by the inherent difficulties to perform RCTs in emergency setting, including difficult randomization, various expertise of the attending surgeon, the frequently unstable general condition of the patients which preclude prolonged and technically tricky interventions. The rarity of the obstructing RCC (only 4% of all right-sided cancers) additionally hampers the recruitment of enough cases (4).

The oncological principles of resection should be applied even in emergency setting. This, however, although is

feasible in experienced hands (*Figure 1*) (5), may not always be possible in obstructing RCC due to technical reasons such as the limited working space, different skills of the surgeons on call and frequently unstable general condition of the patients. Nowadays, it is well established fact that complete mesocolic excision (CME) improves the outcome in stage III cancers (decreased local recurrences—from 15% to 4%, and 5-year survival from 62% to 81%) (6), which is confirmed by a recent meta-analysis—HR 0.33 for 5-year survival (7). It is important to note, however, that CME is technically tricky procedure associated with a prolonged operative time (mean duration of 178 min) (8) and significantly more complications (RR 1.23) even in elective surgery (7), which could make its use in obstructing RCC questionable.

Therefore, all efforts to stabilize the patients and to resolve the obstruction are highly advisable. Similar to the combat practice, the mastery of surgery includes not only good technical skills but also an ability to choose the right tactic in the right patient. In their comment, Kwak *et al.* gave an excellent brief overview of the benefits of self-expanded metal stents (SEMS) as a bridge to elective surgery in obstructing colon cancer (2). On the background of the contradictory results for SEMS placement in obstructive RCC, the authors cited two small retrospective recent studies comparing a total of 39 cases with SEMS *vs.* 74 cases underwent emergency surgery, reporting no differences in the long term overall survival on the background of an increased rate of laparoscopic resection

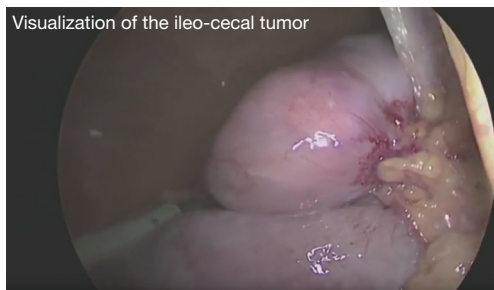


Figure 1 Laparoscopic view of obstructing ileocecal tumor.

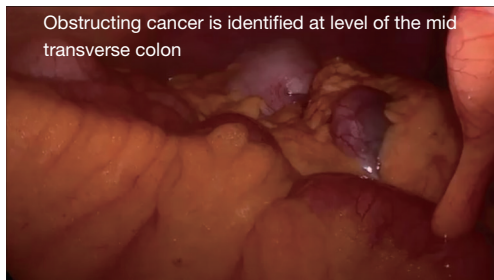


Figure 2 Obstructing transverse colon cancer.

(4,9). In the study of Ji *et al.* only 12% of emergency group underwent laparoscopic surgery *vs.* 93% in SEMS group (9), whereas Kye *et al.* reported 39% *vs.* 60% (4).

Finally, we agree with Kim *et al.*, that despite the lack of rigorous evidence the laparoscopy could be useful initial step in selected cases (Figures 1,2) (10,11). A multicenter prospective online platform to recruit enough data and to achieve the best evidence based strategy in obstructing RCC is highly warranted.

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