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## Platinum Priority – Editorial

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# For Wider Acceptance of Radical Cystectomy and Extended Pelvic Lymphadenectomy

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The article by the Department of Urology of the University of Bern [1] addresses the impact of readaptation of the peritoneum following cystectomy and extended pelvic lymph node dissection on the postoperative incidence of pain, the recovery of bowel function, and the incidence of early complications, in two groups of 100 patients each who were randomly assigned to partial peritoneal reconstruction, or to the conventional procedure. All three postoperative parameters taken into account in this study showed significantly better results in the group of patients who underwent peritoneal readaptation compared to conventional surgery. This elegant study offers grounds for a few comments.

It is acknowledged that a delayed postoperative return of bowel function represents the most frequently encountered complication after abdominal surgery in general, and after radical cystectomy. It causes patient discomfort, leading to delayed rehabilitation and increased length of stay. Several different terms are used to define this condition, although, small bowel palsy, constipation, or obstruction cannot be regarded as synonyms because some critical variables (eg, time of observation in the postoperative period, duration of the condition over time, and need of medical, or surgical intervention) are not commonly taken into account and specified. More properly, *ileus* is a general term used to describe intestine that ceases contracting for a period of time [2], although it may sound a little too general. At our center, the definition of postoperative ileus (POI) as no evidence of bowel function by post-op day 4, as proposed by Chang and colleagues [3], obtained the widest agreement among our surgical staff and is currently in use.

In the study by Roth and co-workers [1], adhesions between the small bowel and the deperitonealized abdominal/pelvic wall as well as between bowel segments are taken

into consideration as possible causes of POI. In fact, adhesions represent the consequence of the acute inflammatory reaction induced by surgery that can be responsible for bowel obstructions observed occasionally in the mid- or late postoperative period, implying the need for relaparotomy in some cases. Several other elements work with the surgically induced inflammatory reaction, such as the mere opening of the peritoneal cavity, bowel manipulation, or perception of pain, and are recognized factors responsible for inducing POI. Moreover, the complex origin of POI also includes pre-, intra-, and postoperative factors.

A comprehensive analysis of the causes of POI and the clinical studies aimed at the prevention or reduction of POI have resulted in the so-called fast-track surgery [4]. The principles of fast-track surgery that have been applied to open surgical colonic procedures, achieving a substantial reduction of overall hospital stay from 8–12 d to 2–5 d, have inspired and contaminated urologic surgery [5] and have prompted the use of multimodality perioperative plans designed to minimize the effect of factors potentially associated with the development and maintenance of POI [6]. Although the contribution of each step may be variable and difficult to measure objectively, epidural analgesia through a cannula placed at the thoracic level, T 10<sup>Th</sup>–11<sup>Th</sup>, in association with nonopioid general anesthesia (referred to as *combined anesthesia*), plays a central role.

Gastric decompression may be used to reduce bowel volume; it is generally more helpful in upper abdominal surgery than in surgery of the lower abdomen or pelvis, as is the case for cystectomy with lymph node dissection. In the past, nasogastric tubing represented the most widely used form of bowel decompression, whereas gastrostomy has had a minor diffusion. Nonetheless, nasogastric tubing or other forms of nasogastric decompression have proved to be

unnecessary and to expose patients to complications and are no longer recommended [7].

The recovery of bowel function was measured in the study by using nausea and vomiting and passage of flatus and stool as indicators [1]. Nausea is a subjective parameter and therefore is difficult to define objectively. Conversely, vomiting is an objective symptom; nonetheless, it may be attributable to different general causes (eg, side effects of drugs, reaction to pain or abdominal discomfort, stimulation of the vagal nerve, use of antiemetic medications). With regard to passage of flatus and stool as indicators of bowel function, they have their own weaknesses such as subjectivity, observer dependence, and time of observation. Usually, small bowel recovery of motility and absorption takes place within hours of surgery, whereas the recovery of gastric and colonic functions may take 2–5 d [8,9]. The detection of some degree of peristalsis may simply indicate small bowel activity. Similarly, passage of flatus may imply that the colon has recovered. Those signs, however, do not always mean that the digestive function is back to normal; in fact, intolerance to adequate oral feeding may be experienced by some patients, despite the presence of peristalsis and flatus. A coordinated, normal activity of the three bowel segments (gastric, small bowel, and colon) needs to be restored for a full recovery of the digestive function. In our opinion, the time for resumption of a normal diet represents a more appropriate clinical parameter to assess the duration of POI and the rehabilitation of bowel function. Moreover, with the use of perioperative multimodality plans, a short median time to regular diet resumption is obtained without the need for routine use of pharmacologic stimulation [6].

In addition to the above-mentioned postoperative end points of the study, namely, the intensity of postoperative pain, the recovery of bowel function, and the incidence of early complications, the authors also assessed the time to mobilization, measured as the ability to walk for >10 min without assistance. Despite the nonsignificant difference of 1 d observed between the two groups, this interesting suggestion should be expanded further and incorporated in focused and purposely designed future studies. It seems like a very practical source of clues with regard to the prediction of postoperative complications.

The policy of looking for lymphoceles on a regular basis is commendable, especially in those patients undergoing this clinical study. It also would seem reasonable to drain fluid collections when they show association with symptoms (eg, fever, distal edema) and do not regress after antibiotic treatment.

This study is first assessing the role of reperitonealization [1]. The authors appropriately recognize that this is but one reconstructive technique, and alternatives could be equally valid. In more detail, the peritoneum is readapted to cover the posterior and lateral walls of the pelvis. The inner surface of the pubis as well as the deep pelvis in the prerectal space are left uncovered, although bowel adherence can take place occasionally at those sites. For this reason, our preference is for the extraperitoneal approach for cystectomy, followed by a small opening of the

peritoneum to access the ileal limb needed for urinary diversion and closing of the peritoneal cavity around the flap of mesentery that provides vasculature to the loop. This approach offers the advantage of leaving the uretero-ileal anastomoses outside the peritoneal cavity, implying a lesser burden for patients and fewer worries for the surgeon in case a temporary leakage appears from the anastomoses. This approach has become standard for our patients aged  $\geq 75$  yr who are candidates for uretero-ileal cutaneostomy.

Population-based studies have shown that one of two men with muscle-invasive bladder cancer in the age range of 54–74 yr receives the gold standard treatment for this condition, that is, radical cystectomy. The ratio goes down to 1 in 6 from 75 to 79 yr of age and further to 1 in 10 in octogenarians [10]. With the steady increase in life expectancy that we are currently witnessing, a parallel increase is expected in all cancers, including bladder cancer. In addition to the progress made in the perioperative management of major surgery, we need more studies like this one [1], showing that the surgical burden of radical cystectomy can be reduced through technical refinements. The authors must be credited for having shown that readaptation of the peritoneum is a valuable example.

**Conflicts of interest:** The author has nothing to disclose.

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