



Abdominal distension following radical cystectomy: what we know and what we need to know

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Radical cystectomy and urinary diversion are the mainstays for the treatment of muscle-invasive bladder cancer (1). Despite spectacular progress in surgical techniques for radical cystectomy including the introduction of minimally invasive robotic-assisted cystectomy, this procedure continues to be associated with high complication rates (2). Complication rates can be driven by many factors like patient age, comorbidities, the complexity of the surgical procedure (ileal conduit versus continent diversion), operative approach (open versus robotic), and surgical experience (3-5).

The study by Qi *et al.* (6) aims to detect potential risk factors for the development of postoperative abdominal distension following radical cystectomy. The primary endpoint; abdominal distension; was dependent solely on the subjective perception of patients on the feeling of gassiness, which is affected by many factors like pain threshold, the expressive ability of patients, and the social and educational level of patients. Abdominal distension evaluation would be more credible if it's dependent on combined subjective, and objective criteria (like feeling nausea, audible intestinal sounds, the passage of flatus, and defecation).

Notably, the Charlson Comorbidity Index (CCI) has a significant impact on postoperative abdominal distension especially peptic ulcer disease, liver diseases, and some connective tissue diseases (i.e., Celiac diseases, Crohn's

disease). So, CCI is an important risk factor that should be assessed for an eventual comprehensive evaluation. A large study conducted on 11,379 patients, found that a higher age-adjusted Charlson comorbidity score (ACCI) was an independent predictor for the development of postoperative ileus (7).

According to the enhanced recovery after surgery (ERAS[®]) society guidelines (8), strong recommendations have been advocated to allow an oral diet 4 hours after surgery. Normal diet as opposed to parenteral nutrition is encouraged as soon as possible to maintain body hemostasis. Moreover, there is no evidence supporting that routine prolonged fasting after cystectomy is associated with favorable outcomes. On other hand, early food intake is associated with a reduced complication rate, an increased rate of recovery and reduced hospital stays (9).

Perioperative fluid management is considered now the mainstay for prophylaxis of postoperative abdominal distension and development of postoperative ileus (POI). Both fluid excess or hypovolemia can provoke splanchnic hypoperfusion, subsequently increasing the likelihood of the development of postoperative ileus, increased morbidity, and length of hospital stays (10). Intraoperative goal-directed fluid management strategies, using esophageal Doppler to achieve "near maximal stroke volume", within ERAS protocols are tailored to individual hemodynamic parameters and have been shown to hasten the return of

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bowel function and mitigate the risk of development of postoperative abdominal distension (11).

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