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Urinary diversion after exenterative surgery: continent conduit remains my ideal approach

Manuel Penalver

Pelvic exenteration is a procedure offered to gynecologic oncology patients with central recurrence of disease in the pelvis.^{1–3} It may require urinary diversion and occasionally fecal diversion. After resection of the bladder during pelvic exenteration, the surgeon needs to create a new bladder for urinary diversion. Several techniques for urinary diversion have been described and it is not always easy to decide which diversion technique is the correct one for each individual patient. The ileal conduit is the simplest form of urinary diversion and has a low complication rate. This was the first type of diversion offered to gynecologic oncology patients undergoing pelvic exenteration.¹ After the ileal conduit, more complex surgical techniques were developed for continent urinary diversion offering advantages to patients. The ideal patient for a continent urinary diversion is a highly motivated and responsible patient who is willing to self-catheterize intermittently throughout the day. With time and surgical experience continent urinary diversion gained acceptance as alternatives to ileal conduits for patients undergoing exenteration.^{4,5} Intermittent catheterization of the reservoir at regular intervals has the advantage that the patient does not have to wear an external ostomy appliance. Studies have shown an improvement in self-image and quality of life for patients undergoing continent diversion. If the patient does not have to undergo a colostomy, no external appliance after pelvic exenteration will be needed. A variety of surgical techniques have been described for continent diversion. These techniques make use of the small bowel (Camey) or a combination of terminal ileum and ascending colon (Indiana, Mainz, and Miami). The optimal form of continent urinary diversion provides urinary continence, protects the upper urinary tract by preventing reflux, and has sufficient capacity to require catheterization no more than every 3–6 hours.

In this month's lead article, the authors offer an excellent description of the different techniques of urinary diversion. They describe surgical techniques, peri-operative care, follow-up, early and late complications, and outcomes of the different techniques. I congratulate the authors on the comprehensive nature and documentation of details of the different urinary diversion techniques. Two points raised that I would like to emphasize. First, the authors suggest that the centralization of

pelvic exenteration in referral centers is crucial to optimize the oncologic and functional outcomes of complex reconstructive surgery. Due to the decreased number of pelvic exenterations being performed at different institutions, it is important that these complex surgeries be performed by surgeons who are experienced with this difficult technique. Also, these cases should be done at institutions that are familiar with the complex nature of the intra-operative, as well as, post-operative care. The second point that I would like to emphasize is that in gynecological oncology, the results of the Laparoscopic Approach to Cervical Cancer (LACC) trial demonstrated worse oncologic outcomes of minimally invasive surgery compared with the early approach in early cervical cancer.⁶ Therefore, the indications for pelvic exenteration and urinary reconstruction by minimally invasive surgery should be reserved for select cases of gynecologic cancers. Continent urinary diversion is an excellent form of urinary diversion if offered to the carefully selected patient, performed by exploratory laparotomy, and done in reputable centers with expertise in the technique.

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