Bricker ileal conduit diversion in 10 steps

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ABSTRACT

Incontinent urinary diversion was first described by Bricker in 1950.¹ Bricker ileal conduit is a non-continent urinary reconstruction which can be performed after an anterior or total pelvic exenteration. In the field of gynecological oncology, it is the most frequently employed urinary diversion in patients with persistent or recurrent gynecologic cancers. This type of diversion is specially indicated in older patients, or in patients not able to manage a continent reconstruction which requires self-catheterization.² To date, there is no convincing evidence in the literature demonstrating a better quality of life offered by any type of urinary diversion.³

To create the urinary conduit, a 20 cm ileum segment is harvested in isoperistaltic orientation. The ureters are anastomosed to the proximal end of the conduit and the distal end is used to perform a cutaneous stoma for urine drainage, which is externally connected to a collection device attached to the skin. Our aim is to standardize this procedure in order to facilitate its learning as we have previously published for other types of urinary diversion procedures.⁴

We describe this surgery in the following 10 sequential steps:

1. Ureteral dissection
2. Isolation of the ileal loop
3. Stapled side to side ileo-ileal anastomosis
4. Transmesocolic mobilization of the left ureter to the right side
5. Urostomy fixation
6. Ureter spatulation and pigtail stent insertion

7. Uretero-ureteral anastomosis (Wallace technique)
8. Posterior wall ileo-ureteral anastomosis
9. Anterior wall ileo-ureteral anastomosis
10. Blue dye testing

This surgery was performed on an 82-year-old woman presenting a central pelvic recurrence of an endometrial cancer previously treated with total hysterectomy and bilateral adnexectomy followed by adjuvant radiotherapy. A salvage infralevatorian anterior pelvic exenteration followed by a Bricker ileal urinary diversion was performed (video 1).

One of the advantages of this incontinent urinary diversion is that the management of the urinary stoma is generally quickly acquired by patients. Beyond technical feasibility, the type of urinary reconstruction should be chosen after preoperative counseling according to the patient's preferences. We believe that standardization of surgical procedures in 10 steps enhances its distribution among surgeons and improves the learning process.

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video 1.

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