

## Bricker ileal conduit diversion in 10 steps

Carlos Martínez-Gómez,<sup>1,2</sup> Martina Aida Angeles,<sup>1</sup> Claire Sanson,<sup>1</sup> Malavaud Bernard,<sup>1</sup> Alejandra Martínez,<sup>1,2</sup> Gwenaél Ferron<sup>1,3</sup>

<sup>1</sup>Department of Surgical Oncology, Institut Universitaire du Cancer Toulouse Oncopole, Toulouse, France

<sup>2</sup>INSERM CRCT01, Tumor Immunology and Immunotherapy, Toulouse, France

<sup>3</sup>INSERM CRCT19, Sarcomas oncogenesis, Toulouse, France

## Correspondence to

Dr Gwenaél Ferron, Department of Surgical Oncology, Institut Universitaire du Cancer Toulouse Oncopole, Toulouse 31059, France; ferron.gwenaél@iuct-oncopole.fr

Accepted 11 November 2019

## ABSTRACT

Incontinent urinary diversion was first described by Bricker in 1950.<sup>1</sup> 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.<sup>2</sup> To date, there is no convincing evidence in the literature demonstrating a better quality of life offered by any type of urinary diversion.<sup>3</sup>

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.<sup>4</sup>

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.

**Twitter** Martina Aida Angeles @AngelesFite and Alejandra Martínez @Alejandra

**Contributors** CM-G, MAA, and CS: conceptualization, video editing, and writing-original draft. MB and AM: conceptualization, project administration, supervision, and writing-review. GF: conceptualization, project administration, surgery and video recording, supervision, and writing-review.

**Funding** The authors have not declared a specific grant for this research from any funding agency in the public, commercial, or not-for-profit sectors.

**Competing interests** None declared.

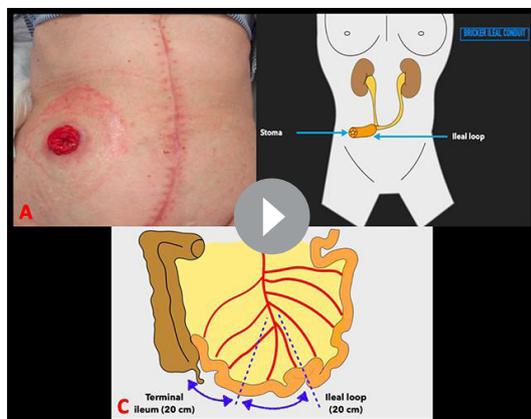
**Patient consent for publication** Not required.

**Provenance and peer review** Not commissioned; externally peer reviewed.

**Data availability statement** Data are available in a public, open access repository.

## REFERENCES

- 1 Bricker EM. Bladder substitution after pelvic evisceration. *Surg Clin North Am* 1950;30:1511–21.
- 2 Salom EM, Mendez LE, Schey D, et al. Continent ileocolonic urinary reservoir (Miami pouch): the University of Miami experience over 15 years. *Am J Obstet Gynecol* 2004;190:994–1000.
- 3 Shih C, Porter MP. Health-related quality of life after cystectomy and urinary diversion for bladder cancer. *Adv Urol* 2011;2011:1–5.
- 4 Martínez-Gómez C, Angeles MA, Martínez A, et al. Creation of a Miami pouch in 10 logical steps. *Gynecol Oncol* 2018;151:178–9.



video 1.



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**To cite:** Martínez-Gómez C, Angeles MA, Sanson C, et al. *Int J Gynecol Cancer* Published Online First: [please include Day Month Year]. doi:10.1136/ijgc-2019-000899