Orthotopic continent urinary diversion (the Budapest pouch) in 10 steps

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Accepted 20 July 2020

Published Online First

12 August 2020

After total or anterior pelvic exenteration, a urinary diversion must be performed. The Bricker conduit, a non-continent urinary diversion tailored from the ileum, sigmoid colon, or other bowel parts, is most frequently used in gynecologic oncology surgery because of its simplicity and reliability and is used by our team.¹ Incontinent conduits entail a definitive stoma and the use of urine bags. Continent heterotopic diversions (eg, the Miami, Indiana, and Koch pouches) are technically more difficult, need permanent self-catheterization, and are more complicated to manage. Maybe for these reasons, the quality of life scores of a heterotopic continent diversion and an incontinent reconstruction are equivalent.²

The Budapest pouch, an orthotopic continent urinary diversion, was conceived by Ungar et al.³ It provides a better quality of life because it ensures continence and spontaneous micturition by increasing the abdominal pressure. To create the urinary reservoir the terminal ileum, caecum, and ascending colon are used (similar to the Indiana pouch); ureters are implanted into the terminal ileum and the caecum is anastomosed with the urethra.

The essential oncologic criteria to create a Budapest pouch is central pelvic recurrence and a supralevatorian positioned tumor, enabling the possibility to preserve an unaffected urethra or bladder neck. It is contra-indicated for tumors involving the lower part of the bladder. Also, the general condition of the patient must be good enough to tolerate the procedure (prolonged theater time).

A 64-year-old patient with a body mass index of 29.4 kg/m² developed a central pelvic recurrence involving the vaginal stump and urinary bladder after stage IB1 cervical cancer operated non-radically in another hospital and irradiated post-operatively (external beam radiation therapy plus brachytherapy, total dose 76 Gy). For the recurrence, the surgery consisted of anterior supralelevatorian pelvic exenteration followed by creation of a Budapest pouch.

The exenterative phase of pelvic exenteration is often challenging because of the individual pattern of the tumor growth, previous treatments (surgery, radiotherapy), and the modified anatomy of the pelvis,⁴ but this stage is not shown in the video. In

Video 1 Video still image. Budapest pouch scheme and the portion of bowel (terminal ileum, caecum, and ascending colon) used for the creation of the urinary reservoir.

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To cite: Căpîlna ME, Palfalvi L, Ungar L, et al. *Int J Gynecol Cancer* 2020;**30**:1842–1843.

the reconstructive phase, the Budapest pouch surgical technique is demonstrated in 10 steps which are easy to reproduce (see [Video 1](#)).

Contributors MEC, LP, and LU performed the surgical procedure. LU and LP conceived and described the Budapest pouch surgical technique. AC, SLK, and MS contributed to the video and sound editing. All authors revised, discussed, and contributed to the final result.

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 There are no data in this work

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