


# Creation of a Y-shaped ileal orthotopic neobladder after an anterior pelvic exenteration in 10 logical steps

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## BACKGROUND

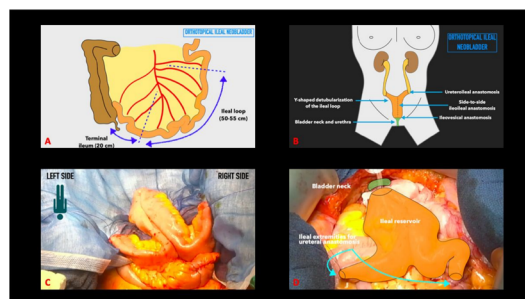
Anterior pelvic exenteration is a salvage procedure for patients presenting with recurrent or persistent gynecological malignancies involving the bladder after prior radiotherapy. The goals of urinary reconstruction have evolved from simple diversions to functioning and anatomic reconstructions as close as possible to physiologic pre-operative status.<sup>1</sup> Ileal orthotopic neobladder is a complex anatomic reconstruction, which requires correct pre-operative functioning of the internal urethral sphincter and bladder neck preservation during pelvic exenteration.<sup>2</sup> It should be offered to motivated patients because the learning process of self-catheterization during post-operative educational neobladder management can take a long time for half of them.<sup>3</sup> For these reasons, pre-operative counseling before choosing the type of reconstruction is crucial.

## Surgery

We present the case of a 34-year-old woman treated with chemoradiotherapy with an aortic extended field for a locally advanced cervical cancer stage IIC2. Before starting brachytherapy, evidence of a symptomatic vesico-vaginal fistula was found during the physical examination and confirmed by magnetic resonance imaging (MRI); therefore, this treatment was contraindicated. MRI also showed a complete tumor response, and the bladder neck was not involved by the fistula. She underwent a supralevarator anterior pelvic exenteration followed by an orthotopic ileal urinary reconstruction.

We described the creation of a Y-shaped ileal neobladder in the 10 following steps:

1. Patient selection.
2. Selection of the ileal loop.
3. Stapled side-to-side ileo-ileal anastomosis.
4. Y-shaped detubularization of the ileal loop.
5. Ureter spatulation and ureteral stent insertion.
6. Ileo-ureteral anastomosis.
7. Posterior ileo-vesical anastomosis.
8. Foley catheter and pigtail stent exteriorization.
9. Anterior ileo-vesical anastomosis.



**Figure 1** (A) Schematic picture of the harvested ileal loop. (B) Schematic picture of orthotopic ileal neobladder. (C) Ileal reservoir. (D) Schematic picture of the reservoir with the extremities to be anastomosed.

## 10 Blue dye testing.

Complete histological response and multiple vesico-vaginal fistulas were found in the surgical specimen. There were no post-operative complications and the patient is recurrence-free 18 months after surgery.

## CONCLUSIONS

Orthotopic ileal neobladder should be considered in patients fulfilling selection criteria. To date, there is no convincing evidence reporting better quality of life in patients undergoing continent and anatomic urinary reconstructions.<sup>4</sup> However, an improved quality of life could be expected as body image is preserved in this type of reconstruction. Unfortunately, this surgical technique is not widely applied by surgeons; with this video 1, we aim to standardize its use.

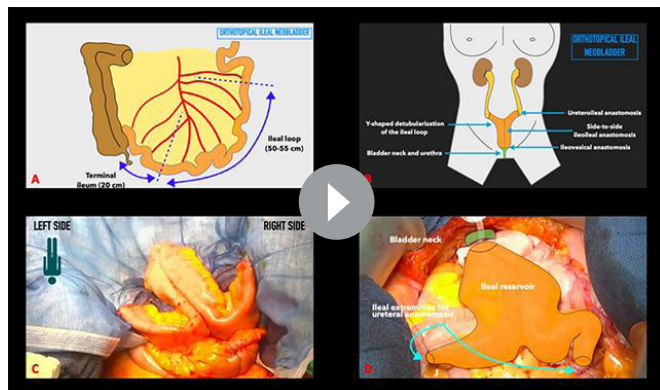
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Video 1

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## REFERENCES

- Chiva LM, Lapuente F, Alonso S, *et al*. Reconstruction in exenterative surgery. In: *Pelvic cancer surgery: modern breakthroughs and future advances*. Springer-Verlag London Ltd, 2015: 407–18.
- Chiva LM, Lapuente F, Núñez C, *et al*. Ileal orthotopic neobladder after pelvic exenteration for cervical cancer. *Gynecol Oncol* 2009;113:47–51.
- Goldberg GL, Sukumvanich P, Einstein MH, *et al*. Total pelvic exenteration: the Albert Einstein College of Medicine/Montefiore medical center experience (1987 to 2003). *Gynecol Oncol* 2006;101:261–8.
- Shih C, Porter MP. Health-related quality of life after cystectomy and urinary diversion for bladder cancer. *Adv Urol* 2011;2011:1–5.