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.1 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.2 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.3 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 IIIC2. 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 supralevator anterior pelvic exenteration followed by an orthotopic ileal urinary reconstruction.

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

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

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.4 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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