

Bladder and urinary deep pelvic endometriosis: a step-by-step standard approach

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# Title : Bladder and urinary deep pelvic endometriosis : a step-by-step standard approach

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## Abstract

**Objective:** To demonstrate how to treat bladder and ureteral deep pelvic endometriosis using a laparoscopic approach with partial cystectomy and resection and end-to-end anastomosis of the ureter.

**Design:** A step-by-step explanation of the surgery using video, approved by the local Institutional Review Board

**Setting:** University Hospital of Strasbourg, France. A 27-year-old nulliparous woman with severe endometriosis stage 4 (AFS-R score >40) of the bladder and left ureter. On pelvic MRI, we found left uretero-hydronephrosis induced by a 17mm endometriosis nodule. A JJ probe was placed on the left ureter before the surgery because of the dilatation of the ureter and the decreased of renal function.

**Interventions:** During the exploration, we found an abdominal cavity free of adhesion. There was an endometriosis implant in the bladder in front of the uterus and a large nodule of the left uterosacral ligament that was compressing the ureter. In the first step, we made a section of the round ligament, to perform anterior ureterolysis and progressive dissection of the nodule surrounding the ureter. Once the nodule was resected, a tight stenosis was observed at about 1 cm from the bladder. The vesico-uterine and the vesico-vaginal spaces were then dissected to pass under the nodule to the vagina. We opened the dome of the bladder with the thunderbeat™ (Olympus) and dissected the bladder to remove the transfixing nodule while staying away from the ureters. The closure of the bladder was performed by 2 lateral

sutures and by a running suture of braided suture (V-Loc™) 2-0 with a good tightness checked by a blue test. Ureteral resection was performed around the JJ probe in place to remove the stenotic zone, then we performed an end-to-end anastomosis of the ureter by 4 sutures of monofilament (Monocryl™) 4-0 with a good anatomical result. Finally an omentoplasty was fixed around the ureter by 2-0 monofilament suture (Monocryl™). Post operative course was uneventful. Foley catheter was left in place 10 days and JJ probe was removed 6 weeks later. Operative time was 140 minutes. The step-by-step explanation technique was simple with minimal operative difficulty and low rate of morbidity.

**Conclusion:** This video shows how deep urinary endometriosis can be performed laparoscopically. Mastering suturing is essential to avoid complications.

*Keywords:* Laparoscopy; deep pelvic endometriosis ; Bladder endometriosis; resection-anastomosis of the ureter

## Video Legend

Video of a step-by-step surgery of urinary tract endometriosis by laparoscopy with partial cystectomy and resection with end-to-end anastomosis of the ureter.

