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Preserving fertility by treating the three compartments: laparoscopic approach to deep infiltrating endometriosis

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The local institutional review board has approved the video.

ABSTRACT

STUDY OBJECTIVE: To describe a laparoscopic technique for the resection of deep endometriosis, treating the three compartments.

DESIGN: Educational video

SETTING: Tertiary referral center in Strasbourg, France

PATIENTS: This is the case of a 37-year-old primiparous woman. Her main symptoms included dysmenorrhea and dyspareunia associated with pollakiuria and macroscopic menstrual hematuria (with emission of endometriotic tissue on analysis). She also complained of dyschezia.

The MRI revealed an endometriotic nodule in the vesicouterine space with an involvement of the anterior wall of the uterus and a suspicion of bladder adenomyosis.

There are lateral spicules attracting the ovaries towards the midline and an infiltration of the round ligaments and nodules related to the rectovaginal space's endometriosis. A possible invasion is noted underneath the rectal mucosa. The patient wants to preserve her fertility.

INTERVENTION: Adenomyomectomy, partial cystectomy, and bowel resection. Fertility preservation is mandatory due to the patient's desire for future pregnancy.

The local institutional review board has approved the video.

MEASUREMENTS AND MAIN RESULTS: Initially, an ultrasonography was performed showing the adenomyoma invading the bladder. The second step was a cystoscopic evaluation by means of a double J probe and a bladder catheter. After the surgery, the bladder catheter was left in place for 15 days and the double J stents for 6 weeks.

The first step is the dissection of the vesicouterine space to dissect the anterior adenomyoma from the bladder. A partial cystectomy is then performed to remove the bladder nodule. The adenomyoma is resected at its uterine portion and the uterus is sutured.

Surgery is then performed in the posterior compartment. Ureterolysis is performed bilaterally, and the pararectal fossas are then opened. The rectovaginal space is dissected. A rectosigmoid resection is mandatory to remove the bowel nodule.

Patient follow-up included regular consultations and a hysterosonography at 6 weeks after surgery. Hysterosonography demonstrated an adequate patency. No adhesions to the uterus were found. We recommended to wait for 6 months to allow pregnancy according to the department's protocols. A clinical improvement was observed. Today at 8 months, she has not attempted to be pregnant again.

CONCLUSION: A complete surgery is feasible for severe and deep endometriosis with a multicompartmental disease, using a laparoscopic approach aiming to preserve fertility.