# Parasitic Myomas and an Adenomyoma Obstructing the Ureter After Power Morcellation of Myomas and Endometriotic Nodule Resection

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## Abstract

**Background:** The use of power morcellation (PM) in abdominal and pelvic surgery has been discouraged and even banned in some institutions because of the risk of spreading malignant cells, although some authorities maintain that PM can be an appropriate tool for selected patients deemed to be at low risk of malignancy.

**Case:** A 42-year-old woman developed parasitic myomas and an adenomyoma obstructing the right ureter after laparoscopic excision of multiple myomas and deep infiltrating endometriosis using PM. Laparoscopic excision of the parasitic myomas and removal of the adenomyoma relieved the obstruction of the ureter.

**Conclusion:** Although there is reasonable concern about the use of PM spreading malignant disease, benign disease can also be spread by PM and can cause significant complications. Use of PM should be restricted as much as possible.

## Résumé

**Contexte :** Certains établissements déconseillent et bannissent même le recours au morcellement motorisé (MM) dans le cadre des chirurgies abdominales et pelviennes, et ce, en raison du risque de voir cette intervention donner lieu à la propagation de cellules cancéreuses. Toutefois, certaines autorités soutiennent que le MM peut constituer un outil approprié chez certaines patientes considérées comme étant exposées à un faible risque de tumeur maligne.

**Cas :** Des myomes parasites et un adénomyome obstruant l'uretère droit se sont formés chez une femme âgée de 42 ans, après l'excision par laparoscopie (au moyen du MM) de myomes multiples et de lésions d'endométriose profonde infiltrante. L'excision des myomes parasites et l'ablation de l'adénomyome par laparoscopie ont rectifié l'obstruction de l'uretère.

**Conclusion :** Bien que l'utilisation du MM suscite des motifs raisonnables de préoccupation à l'égard de la propagation possible de tumeurs malignes, elle peut également causer la propagation de maladies bénignes et entraîner des complications importantes. Il faut donc restreindre le recours au MM autant que possible.



**Key Words:** Morcellation, leiomyoma, laparoscopy, endometriosis, adenomyosis, hydronephrosis

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## INTRODUCTION

Laparoscopic surgery has been used for ever-increasing indications because of its convenience for the patient, shorter associated hospitalization time, and faster postoperative recovery.[1,2] Myomectomy is a commonly performed laparoscopic procedure. The feasibility of performing laparoscopic myomectomy has been facilitated by the use of power morcellators that allow for the easy removal of larger myomas from the abdominal cavity.[3] A power morcellator is a device designed to draw an excised myoma into a whirling blade that is inserted through an endoscopic port. The power morcellator generates small cores of the lesion that can be removed through its sheath.

Concerns have been raised recently regarding tissue spillage with the use of power morcellation (PM), not only during inadvertent morcellation of malignant mesenchymal tumours of the uterus, but also during morcellation of myomas; the latter can result in the occurrence of parasitic myomas and disseminated peritoneal leiomyomatosis

(DPL), a benign but distressing condition that requires additional surgery.[4–8] Removal of endometriotic nodules using the morcellator to reduce surgical volume may theoretically result in disseminated endometriosis-like lesions in the peritoneal cavity similar to DPL. Although DPL and endometriosis are rarely associated, they may share a common etiology; that is, spillage of viable tissue into the peritoneal cavity, leading to neovascularized solitary lesions.

We describe here a woman who developed parasitic myomas and an intraperitoneal adenomyoma obstructing the right ureter after PM.

## THE CASE

A 42-year-old primiparous woman presented with constipation and pain in the perianal area, the suprapubic area, and the right flank. She had undergone a Caesarean section 13 years earlier and laparoscopic multiple myomectomy and resection of deeply infiltrating endometriosis 2.5 years earlier. Each of these procedures was performed in our unit. In the second operation, two intramural myomas measuring 6 cm and 4 cm were removed with concomitant dissection of the cul-de-sac and excision of a 2 cm deeply infiltrating endometriotic nodule adjacent to the right uterosacral ligament. The myomas were removed from the abdomen using PM, but the endometriotic nodule was removed intact in an endobag placed through a lower quadrant trocar.

Twelve months after this procedure, the patient presented with left lower quadrant pain. A transvaginal ultrasound examination demonstrated the presence of a 30 mm endometrioma in the left ovary. Pelvic and rectovaginal examination was otherwise unremarkable. She was prescribed oral contraceptive therapy and advised to return six months later for a follow-up examination. However, she did not do so, and two years later she presented with pain in the right flank and groin. She had not used the oral contraceptives. A combined transabdominal/transvaginal ultrasound examination showed right-sided hydronephrosis and hydroureter. The right ureter measured 3 cm in its largest diameter above the pelvic brim. Multiple subserous myomas measuring 2 to 5 cm in diameter were noted, and the 30 mm left ovarian endometrioma had persisted. The right fallopian tube was dilated with the appearance of a hydrosalpinx.

## ABBREVIATIONS

| | |
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| DPL | disseminated peritoneal leiomyomatosis |
| PM | power morcellation |

With a working diagnosis of recurrent fibroids and endometriosis compressing the ureter, the patient was offered laparoscopic surgery. Preoperatively, blood urea nitrogen, serum creatinine, and serum electrolyte levels were within the normal range.

During laparoscopy, a 4 cm mass embedded in the mesosigmoid and in close proximity to the uterine fundus was identified (Figure 1). This was carefully dissected using scissors and plasma kinetic energy and subsequently removed. Three other tumours located in the left and transverse mesocolon and in the omentum were also removed. These had no attachment to the uterus. The uterus was retroverted and the cul-de-sac was obliterated. Following adhesiolysis, a right retroperitoneal mass, lateral to the sigmoid colon and medial to the right uterosacral ligament, was identified. The mass was adherent to and compressing the dilated right ureter, which was approximately 3 cm in diameter (Figure 2). After opening the pararectal fossa and isolating the right ureter, the mass was dissected away from the ureter using sharp and blunt dissection. As with the other lesions, it had no attachment to the uterus. The right fallopian tube had formed a hydrosalpinx, and salpingectomy was performed. The endometrioma was excised from the left ovary, and two 3 cm subserous myomas were removed from the uterus. Endometriotic lesions on the serosal surface of the rectum and sigmoid colon were shaved, and the anatomy of the cul-de-sac was restored. All the specimens were removed through a culdotomy incision using the vaginal CCL extractor[9] and sent for pathological examination. A double-J catheter was placed in the right ureter after completion of the surgery.

The specimens removed during the initial operation had been reported after pathological examination as leiomyomas and endometriosis of the uterosacral ligament. Pathological examination of the masses obtained at the second procedure from the mesosigmoid, mesocolon, and the

**Figure 1. Parasitic myoma embedded in the left mesocolon**