

P R A C E K A Z U I S T Y C Z N E
ginekologia

Ostre zatrzymanie odpływu moczu spowodowane mięśniakiem szyjki macicy – opis przypadku i przegląd literatury

Acute urinary retention due to cervical myoma – a case report and a review of the literature

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Abstract

Case report: A 48-year-old woman with acute urinary retention due to a big cervical leiomyoma pressing on the urethra was admitted to the Gynecologic Unit. A Foley catheterization was performed and 1500 mL of urine was drained. The gynecologic examination revealed a cervical tumor, 10 cm in diameter. Acute urinary retention and intensifying abdominal pain were indications for emergency surgery. The presented case of obstructive urinary retention is a rare finding as the literature offers only single reports on the symptoms of cervical fibroids and the treatment methods.

Conclusions: Cervical leiomyoma is a rare cause of acute urinary retention. The surgical procedure requires considerable experience to avoid intraoperative bleeding and bladder or bowel complications.

Key words: **acute urinary retention / cervical leiomyoma / hysterectomy /**

Streszczenie

Opis przypadku: W artykule przedstawiono przypadek 48 letniej chorej u której wystąpiło nagłe zatrzymanie odpływu moczu w wyniku ucisku mięśniakowatej macicy na cewkę moczową. Chora z rozpoznaniem zaburzeń w odpływie moczu trafiła w trybie dyżurowym do Oddziału Ginekologii, gdzie po założeniu cewnika Foley'a do pęcherza moczowego ewakuowano 1,5 litra moczu. W badaniu ginekologicznym stwierdzono guz szyjki macicy o średnicy 10 centymetrów. W związku z zaburzeniami w oddawaniu moczu i narastającymi dolegliwościami bólowymi zdecydowano operować chorą w trybie dyżurowym. Przypadek prezentowany w artykule jest rzadkością gdyż w dostępnej literaturze znaleziono pojedyncze przypadki mięśniaka szyjkowego opisywane z tak nasilonymi objawami ze strony układu moczowego. Przegląd literatury koncentruje się także na innych objawach mięśniaków zlokalizowanych w obrębie szyjki macicy oraz postępowaniu terapeutycznym u chorych z tą patologią.

Wniosek: Mięśniak szyjki macicy może być przyczyną ostrego zatrzymania odpływu moczu. Leczenie operacyjne wymaga doświadczenia chirurgicznego i przestrzegania zasad zmniejszających ryzyko obfitych śródoperacyjnych krwawień i uszkodzeń układu moczowego oraz odbytnicy.

Słowa kluczowe: **ostre zatrzymanie odpływu moczu / mięśniak szyjki macicy / wycięcie macicy /**

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Introduction

Myomas are among the most common benign neoplasms that can occur in the female reproductive system, with the incidence of approximately 25% in the general female population and 30-40% among patients over 40 [1]. Cervical localization is extremely rare and occurs in 1-5% of the cases [2, 3]. Bleeding is a typical sign of a myoma. Extrinsic compression due to a pelvic mass is a common cause of anatomic urinary retention [2, 3, 4]. Urinary retention is connected with the mass effect, with the bladder being obstructed possibly secondary to compression of the urethra or the bladder neck, and does not allow for normal micturition. Myomas induce problems that affect the quality of patient life. Acute obstructive retention due to cervical myoma is an uncommon event so data in the literature are scarce [5, 6, 7, 8]. Management of acute urinary retention depends on whether it is treated at a gynecologic or urologic ward. Urologists prefer conservative treatment, with surgical treatment performed usually after 2 months of medical management, whereas gynecologists tend to prescribe operative treatment first [9].

The case of a 48-year-old woman who presented with acute urinary retention caused by cervical leiomyoma pressing to the urethra was the reason why we decided to analyze diagnostic and therapeutic methods presented in the literature.

Case report

A 48-year-old primipara presented at the emergency unit of the Inflancka Hospital complaining of pelvic pain and pressure. She reported an episode of retention when she was unable to void for a couple of hours. Bimanual and speculum examinations were performed: the cervical tumor was poorly movable, the uterus was enlarged, the fundus was palpable 4 cm above the pubis. The diagnosis of fibroids was established 3 years previously and the last gynecological visit took place one year ago. She had a negative work-up for neurological causes of urinary retention. An ultrasound examination revealed an 11-cm cervical leiomyoma with evidence of bladder neck compression but no signs of ureter obstruction. Approximately 1500 mL of urine was removed from the bladder after catheterization. Next, the patient had another episode of retention requiring catheterization over the next 12 hours. The patient was referred to emergency surgery due to pelvic pain and urine retention and underwent a total abdominal hysterectomy for a symptomatic 10-cm cervical myoma. Hypogastric artery ligation was the first step of the procedure and a preventive measure against intraoperative hemorrhage. Also, the fallopian tubes were removed after hysterectomy. Blood loss during surgery was 250 mL. The histological result revealed a leiomyofibroma. (Figure 1), (Figure 2).

Discussion

Cervical myomas constitute 1-5% of all fibroids and are usually asymptomatic [2, 3]. Tiltman examined 661 uteri, removed because of fibroids, and found cervical localization in 0.6% of them, while fibroids placed in the uterine corpus occurred in 64.6% of the cases [10]. According to Takeuchi [11], cervical myomas occur in two areas, extracervically and intracervically. Cervical fibroids usually manifest as menorrhagia, dysmenorrhea, dyspnea, urinary frequency and constipation [4]. Obstructive urinary retention is uncommon in women without history of surgery, but it might be observed in pregnancy with an incarcerated uterus [4,



Figure 1. A uterus with a cervical tumor.

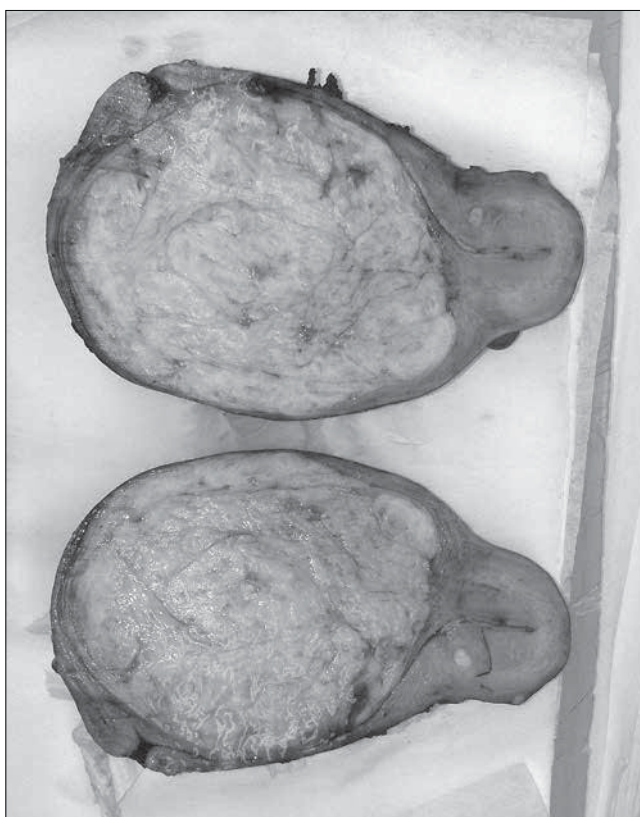


Figure 2. Longitudinal section of the uterus with cervical myoma.

12]. Fast growing gravid uterus may be the cause of urinary retention. Adnexal tumors or abscess and hematocolpos have also been described as rare causes of this pathology [13]. Urinary retention is defined as patient inability to initiate micturition. Acute urinary retention affects 7 out of 100 000 patients per year [13]. The etiology remains obscure but the known risk factors include anatomical, neurological, functional, and pharmacological problems [13]. Voiding dysfunction tends to correlate with the severity of multiple sclerosis and is the main neurological cause of acute urinary retention.

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Anatomical causes are rarely reported in the literature so data are limited [6-8, 15-16]. According to Yazdany [16], the most common location in the posterior lower uterine segment and the cervix, causing bladder outlet obstruction, and no evidence of pelvic organ prolapse may be the reason of the sudden onset of symptoms. He discussed the cases of 8 woman who presented to the emergency room with acute urinary retention and a similar location [16]. According to Bernacle et al. [5], women who presented with urinary retention during menses were at higher risk of bleeding and acute urinary retention. Treatment methods depend on the intensity of symptoms and type of specialist the patient is referred to since a gynecologist makes the decision about surgery faster than a urologist [9]. Medical therapy seems a reasonable option for women with symptomatic myomas who prefer non-surgical treatment and are concerned about preserving their fertility. At present, many effective methods are available in clinical practice, such as pessaries to elevate the bladder cervix, gonadotropin-releasing hormone agonists (GnRH agonists), selective modulators of progesterone receptor or uterine artery embolization to reduce fibroid volume and provide significant relief of menorrhagia [17]. Persistent symptoms like pain, menorrhagia, and acute urinary retention are classic indications that surgical intervention may be necessary. The choice between a laparoscopic myomectomy and hysterectomy is usually determined by patient age, parity, future reproductive plans and experience of the surgeon [3]. The obstruction is often relieved by total hysterectomy via laparotomy in most patients. The surgery must be performed in a precise 'step-by-step' way, using vasopressin or noradrenalin. Additionally, hypogastric artery ligation is performed to reduce intraoperative blood supply and prevent hemorrhage, followed by checking of the ureter, bowel and bladder and mending eventual damages [2, 3, 4]. All these procedures were performed in the case of our patient, except for vasopressin administration, and all these methods are conducted to suppress bleeding during surgery. In conclusion, we hope that our case report might contribute to the discussion about the problem of acute urinary retention caused by cervical myomas, especially diagnostic and therapeutic options.

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