



Obstetrics and Gynaecology Cases - Reviews

CASE REPORT

Urinary Retention in The Case of a Retroverted Uterus in Pregnancy

Camille A Clare, MD, MPH*

Department of Obstetrics and Gynecology, New York Medical College, New York City Health + Hospitals/ Metropolitan, USA



*Corresponding author: Camille A Clare, MD, MPH, Department of Obstetrics and Gynecology, New York Medical College, New York City Health + Hospitals/Metropolitan, 1901 First Avenue Room 4B5, New York 10029, USA, Tel: 212-423-6796, Fax: 212-423-8121

Abstract

Acute urinary retention in patients with retroverted uteri is a rare, obstetrical emergency, and requires immediate intervention. If not treated, it may lead to serious maternal and/or fetal complications. This manuscript describes the case of a 35-year-old female who presented with lower abdominal pain and urinary hesitancy. Physical examination noted a palpable urinary bladder, which was also distended on pelvic ultrasound. Obstetrical ultrasound noted a viable intrauterine pregnancy. The patient's symptoms resolved with one-week urinary catheterization placement, prophylactic antibiotics for one week and follow-up with urology. Despite this treatment course, the patient had a poor obstetrical outcome of preterm premature rupture of membranes and a fetal loss at 20 weeks of gestation. Proposed interventions for urinary retention in the presence of a retroverted uterus include bladder catheterization, manual replacement of the uterus, vaginal pessary, and in extreme cases, surgical correction of the cause of the retention. This case illustrates an example of conservative treatment.

Keyword

Urinary retention, Pregnancy, Retroverted uterus

Introduction

Approximately 11-15% of women have a retroverted uterus [1,2]. Acute urinary retention is a rare phenomenon that has been documented in several case reports of patients with gravid, retroverted, incarcerated uteri. Such cases are generally seen between the late first and early second trimesters. Patients present with difficulty voiding or pelvic pain and pressure secondary to urinary retention [3]. Other causes of urinary retention during pregnancy include lumbar disc herniation, paraurethral abscess,

breech presentation, ectopic pregnancy, conversion psychological disorder [4], uterine malformations, endometriosis and intramural fibroids [5]. Urethral obstruction by extrinsic compression from an impacted and enlarging uterus has also been proposed as the pathogenesis of urinary retention [6].

If not treated, urinary retention may lead to serious maternal and/or fetal complications. Cases reports have documented maternal sepsis, renal failure, and chronic urinary retention [1]. Furthermore, early pregnancy loss and preterm premature rupture of membranes have been noted. Proposed treatment interventions include bladder catheterization until the uterus migrates from the pelvis to the abdomen, in addition to manual replacement of the uterus. Both interventions involve chronic bladder drainage with an indwelling urinary catheter until migration of the uterus is noted. Vaginal pessary placement may also be utilized [6]. Surgical correction in rare case of urinary retention for specific causes, such as incarcerated fibroids, has been described [5]. This case illustrates an example of such an intervention.

Case Presentation

A 35-year-old G2P0010 presented at 11w2d to the emergency department with a chief complaint of lower abdominal pain and urinary hesitancy. Her obstetric history was significant for a dilatation and curettage for voluntary termination of pregnancy and no other significant medical, surgical, or gynecologic histories. Physical exam findings noted an appreciable distended bladder upon palpation of the abdomen, which also appeared markedly distended on sonogram. A viable



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intrauterine pregnancy (IUP) was also noted. A straight catheter was placed and 1.2 liters of urine were drained. A urinalysis and urine culture were sent, which showed no evidence of infection. The patient was given a six-hour passive voiding trial; however, she was unable to pass urine.

The patient was subsequently evaluated by urology and an indwelling catheter was placed for one week. The patient was placed on nitrofurantoin for infection prophylaxis and followed up in the urology clinic one week later, at which time she passed a trial of void and resumed her usual prenatal care. She experienced preterm premature rupture of membranes (PPROM) at 20w5d and underwent a medical termination of pregnancy secondary to rupture of membranes prior to viability.

Discussion

This case presentation is unique in that while the patient's acute urinary retention was promptly treated, an adverse outcome (PPROM) occurred 10 weeks later despite early intervention and drainage of the distended urinary bladder. While no universally accepted protocol exists to treat this specific group of patients, prompt management and consideration of placement of indwelling urinary catheter is essential. Women who present with urinary retention in the late first to early third trimesters should undergo a pelvic examination with or without ultrasound guidance to assess for the presence of a retroverted uterus. Immediate urological and/or obstetrical intervention are

warranted to avoid potentially morbid complications. Obstetricians who identify a retroverted uterus in their pregnant patients should be aware of this rare, but potential emergent complication of urinary retention and the aforementioned maternal and fetal risks. Early intervention and a multidisciplinary approach may be considered in such patients.

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