

Recurrence of urinary retention secondary to retroverted gravid uterus

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Background: Although urinary retention caused by the retroverted gravid uterus is uncommon, acute urinary retention is an emergency condition. **Cases:** We present here two cases of acute urinary retention at 12 weeks' gestation secondary to retroverted gravid uterus. Although some preventive measures were suggested to the patients, recurrences of urinary retention occurred during the following 2-3 weeks and in their next pregnancies. **Conclusion:** In cases that urinary retention due to retroverted gravid uterus once occurred, we have to pay attention to the recurrence of urinary retention during the next pregnancies. (Suzuki S, Ono S, Satomi M. Recurrence of urinary retention secondary to retroverted gravid uterus *North Am J Med Sci* 2009; 1: 54-57).

Key words: Urinary retention; retroverted gravid uterus; recurrence.

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Introduction

Acute urinary retention in pregnancy is a rare occurrence that may cause severe lower abdominal pain with a palpable bladder by way of the abdomen. Several cases have been reported that were associated with the uterus impacted in the pelvis, a tubal ectopic pregnancy, a cervical pregnancy, a fibroid uterus and retroversion of the uterus [1-5]. Retroversion of the gravid uterus is often transient and urinary retention caused by the retroverted gravid uterus is uncommon [4, 6]; however acute urinary retention is an emergency condition.

In this report, we present two cases of urinary retention during their first trimester of pregnancy secondary to retroverted gravid uterus. Although some preventive measures were suggested to the patients, recurrences of urinary retention occurred during the following 2-3 weeks

and in their next pregnancies.

Case one

A 28-year-old woman experienced urinary retention occurring at midnight at 12 weeks of her first pregnancy (Fig. 1). She was presented to the Emergency Department for urethral catheterization, which drained 900 ml of clear urine. On vaginal examination, the cervix was drawn up into the anterior fornix behind the symphysis pubis. Transabdominal and vaginal sonography revealed a retroverted uterus with a gestational sac and fetus located in the pelvic cavity (Figs. 2 and 3). There were no clinical findings indicating having urinary tract infection or bladder stone, and she had no history of excessive fluid intake (alcohol), constipation or medication.



Fig. 1 Ultrasonography showing urinary retention before treatment.

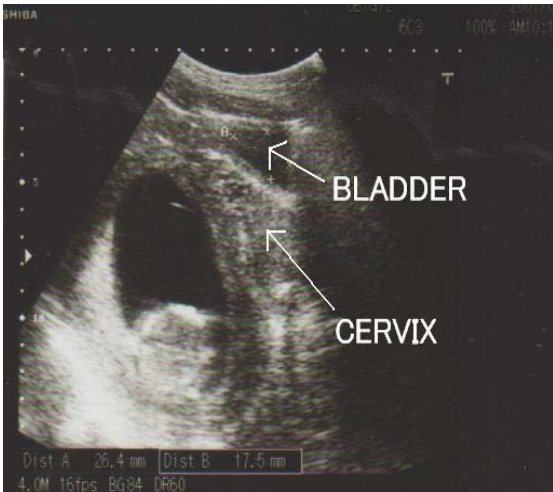


Fig. 2 Transabdominal ultrasonography showing the retroverted gravid uterus at 12 weeks.



Fig. 3 Transvaginal ultrasonography showing the retroverted gravid uterus at 12 weeks.

The following prophylactic measures were suggested to the patient: limiting fluid intake before sleep and changing from supine to the prone position for a while before getting up to go to the toilet. Until 14 weeks' gestation, however, urinary retention requiring urethral catheterization recurred three times. Each catheterization yielded around 600-1000 ml urine. At 15 weeks' gestation, the gravid uterus was examined and no retroversion was found anymore (Fig. 4). She had no more recurrence of urinary retention during the rest of this pregnancy.



Fig. 4 Transvaginal ultrasonography showing the gravid uterus without retroversion at 15 weeks.

Three years later, the patient consulted our hospital again due to urinary retention at 11 weeks of her second pregnancy. Urethral catheterization, which drained 600 ml of clear urine, was performed with prompt effect. At this time, transvaginal sonography revealed a retroverted uterus again. She had no recurrence of urinary retention during the rest of the pregnancy.

Case two

A 26-year-old woman followed the course

approximately similar to the Case one. She experienced urinary retention requiring urethral catheterization, which drained 900 ml of clear urine, at 12 weeks of her first pregnancy. Transvaginal sonography also revealed a retroverted uterus. The same prophylactic measures were suggested to the patient. Until 14 weeks' gestation, urinary retention requiring urethral catheterization recurred two times. At 16 weeks' gestation, the gravid uterus was examined and no retroversion was observed anymore. She had no recurrence of urinary retention during the rest of this pregnancy. Two years later, she consulted our hospital again due to urinary retention at 11 weeks of her second pregnancy.

Discussion

The cause of retention associated with retroverted gravid uterus has been reported to be mechanical compression of the lower bladder by the anteriorly and superiorly displaced uterine cervix [5]. This condition has been described in all 3 trimesters but most commonly it occurs between 10 and 16 weeks' gestation [1-6]. In an earlier report [4], retroversion of the gravid uterus has been observed to be in about 11% of all pregnant patients at ≤ 16 weeks' gestation, and the incidence of urinary retention due to a retroverted uterus has been observed to be 1.4% (3 in 220). Therefore, urinary retention caused by the retroverted uterus has been suggested to be uncommon.

In the current two cases, although some preventive measures were suggested to the patients, recurrences of urinary retention occurred during the following 2-3 weeks and in their next pregnancies. The reasons are not clear, because in the two cases, except for retroversion of the uterus contributing to urinary retention, we could not find any other abnormalities, such as urinary tract infection, bladder stone, cystocele and rectocele, excessive fluid intake, constipation, medication, fibroid uterus or pelvic tumor [1-8]. In an earlier report by Yang and Huang [5],

one case with recurrent urinary retention due to retroverted gravid uterus was recognized in their five cases (2 nulliparous and 3 multiparous). The patient had urinary retention at 12 weeks' gestation requiring placement of a urethral catheter for 1 month because of a repeat episode of acute urinary retention during her first pregnancy, and she had the same episode at 11 weeks' gestation during her second pregnancy. However, Yang and Huang [5] could not mention any differences between the cases with and without recurrence. Therefore, in cases that urinary retention due to retroverted gravid uterus once occurred, we have to pay attention to the recurrence of urinary retention during the next pregnancies. In addition, it may be better to explain to the patients about the possibility of recurrence of urinary retention and the necessity of limiting fluid intake before sleep as a preventive measure of urinary retention during the first trimester of their next pregnancies.

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