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Case Report Open Access

Acute Urinary Retention Due to an Incarcerated Retroverted Gravid Uterus

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Abstract

We report a case of a woman in the second trimester of pregnancy who attended our center with difficulty voiding. Based on physical and ultrasound examination, she was diagnosed with uterine incarceration. Management was conservative, through manual reduction and by bladder catheterization, facilitating spontaneous resolution of the uterine incarceration.

Keywords: Urinary retention; Pregnancy; Retroversion; Incarceration

Introduction

Acute urinary retention is a rare occurence during pregnancy [1]. Incarcerated retroverted uterus has been implicated in the pathogenesis of acute urinary retention in approximately one in 3,000 pregnancies [1-3]. The enlarged uterus due to pregnancy induces uterine entrapment in the pelvis between the sacral promontory and pubic symphysis. The most common symptoms are pain and progressive difficulty in voiding [4,5].

Case

A 33 years-old second gravid woman at 17 weeks gestation presented with an acute urinary retention. Pelvic and rectovaginal examination revealed fullness in the posterior cul-de-sac. Bladder catheterization revealed a residual volume 1200 ml clear urine. After discarded the possibility of urinary infection, she was discharged. After six hours, she returned with the same symptoms, and a new bladder catheterization showed a residual volume of 800 ml.

Transvaginal ultrasonographic imaging is shown in Figures 1 and 2. Uterine incarceration was suspected. The change in uterine polarity was noted after manual reduction in the emergency room. The patient was moved to an area under observation until spontaneous urination without difficulty. She was discharged with several suggestions, including use muslim prayer position for 2-3 weeks.

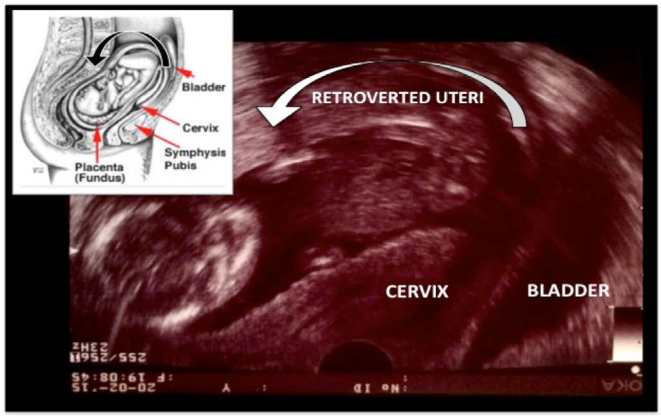

Figure 1: Transvaginal ultrasonography showing a retroverted uterus during pregnancy. The cervix lies posteriorly to the urinary bladder, and the uterus normally extends superiorly from it, but the direction of the body of the fetus reveals that the uterus extends backwards.

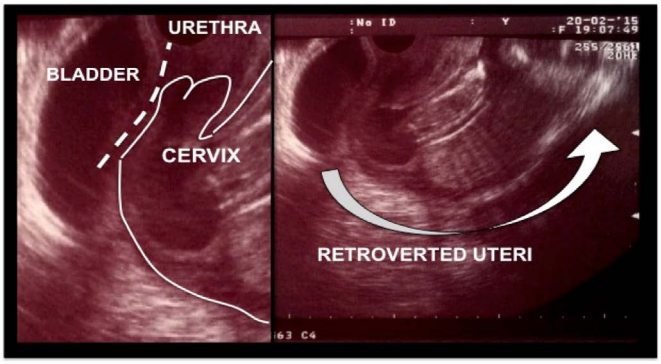

Figure 2: Transvaginal ultrasonography showing a retroverted uterus during pregnancy. The cervix lies posteriorly to the urinary bladder, and the uterus normally extends superiorly from it, but the direction of the body of the fetus reveals that the uterus extends backwards.

Thereafter, her pregnancy remained uneventful, and she vaginally delivered a healthy girl at 39 weeks. She had no urinary complaint at her postpartum visit 5 weeks later.

Discussion

Uterine incarceration is a rare entity that occurs most frequently in the second trimester [4]. It affects pregnant women, usually with retroverted uterus. The incidence of uterine retroversion during pregnancy is 15% [1-3], and is described as a rotation of more than 45 degrees respect to the uterine longitudinal axis. In most of the cases, this retroversion is resolved spontaneously in the 14th weeks of gestation [2,3]. Rarely the retroverted uterus may become trapped [1,2]. There are several risk factors, as a very deep sacrum concavity, which favors the status of the uterus embedded. Clinical manifestations may be acute or chronic, or even entirely absent, in which case the torsion is identified as an intraoperative finding. Urinary retention may occur quickly urethral obstruction by an extrinsic compression of the expansion and imprisoned uterus [1-3]. The putative mechanism involved is believed

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that one displaced cervix lower compressing the bladder, interfering with drainage to the urethra or urethral compression distortion [1].

The diagnosis of incarcerated uterus is based on physical and ultrasound examination [2,4]. The clinical criteria for diagnosing a incarceration of a gravid uterus are: pregnancy over 12 weeks, the location of the cervix to the pubic symphysis, uterus retroverted placed in the sacral cavity and symptoms solved by reducing the uterus.

Various treatments have been described to solve the uterine incarceration, including conservative maneuvers that are based on manual reduction; which are not recommended after week 20. In our case, the incarceration was resolved with bladder catheterization and manual operation. However complicated cases need IUC and other aggressive techniques, including surgery.

Conflict of Interest: None

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