



Impairment of urethral coitus due to mid-urethral sling in a woman with vaginal agenesis

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Introduction

Urethral coitus is extremely rare, and only 30 cases have been reported [1]. Most women with urethral coitus have had Müllerian anomalies, such as vaginal agenesis [1]. As a result, urethral coitus may be necessary, leading to megalourethra, urethral dilatation and subsequent stress urinary incontinence (SUI) [2]. For women with vaginal agenesis and SUI, the urethral sphincteric function and structural support might be restored after vaginal reconstruction [3], even though anti-incontinence surgeries are frequently recommended [2, 4].

The mid-urethral sling (MUS) has been a popular anti-incontinence procedure [5]; however, the MUS might limit urethral downward movement and dilatation and impede urethral coitus. Therefore, women with vaginal agenesis who undergo a solitary MUS procedure without vaginal reconstruction may experience failure of urethral coitus.

Herein, we describe the first reported case of sexual dysfunction due to an MUS procedure in a woman with vaginal agenesis. For women with vaginal agenesis, SUI

and megalourethra, the possibility of urethral coitus should be considered and explored with the patient. The MUS procedure should therefore be avoided if there is no plan for vaginal reconstruction. That is, it is important to take a sexual history from the patient prior to inserting slings given the adverse effects the sling may have on coitus, particularly if there is a history of vaginal agenesis.

Vaginal reconstruction for vaginal agenesis includes creation of a neovagina with isolated bowel segments or McIndoe's vaginoplasty [4]. After vaginal reconstruction, the urethral sphincteric function and structural support might be restored [3].

Case report

A 59-year-old female has a history of a hysterectomy due to a non-communicating uterus at the age of 19. She was married at 38 years old and had regular sexual intercourse thereafter. However, she was diagnosed as having SUI with the complaint of involuntary loss of urine on sneezing, coughing and running and underwent an MUS procedure with a tension-free vaginal tape. Her incontinence improved after surgery; however, she developed de novo sexual dysfunction (i.e., the inability to be penetrated) after the MUS procedure. Owing to embarrassment, she did not visit any clinics for help. Nonetheless, she visited our outpatient clinics for the treatment of sexual dysfunction 14 years after the MUS procedure. Besides, she also complained of urgency incontinence. Physical examination revealed megalourethra and vaginal agenesis (Fig. 1) confirmed on magnetic resonance imaging

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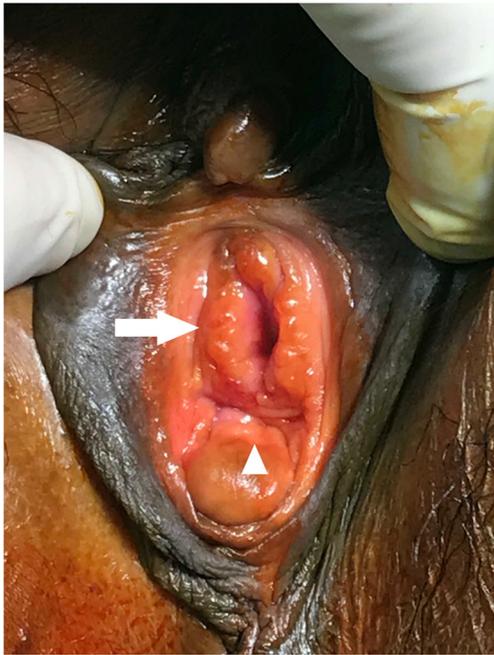


Fig. 1 Megalourethra (arrow) and vaginal agenesis (arrowhead)

(Fig. 2). Thus, impaired urethral coitus due to an MUS procedure was diagnosed. Under anesthesia, the urethra easily admitted one finger (Fig. 3) with limited downward movement of the urethra due to the MUS (Fig. 4). After segmental resection of the MUS, urethral downward movement improved. On follow-up, 5 months after surgery, she had resumed successful sexual intercourse and



Fig. 3 The urethra admitted one finger (arrow)

remained continent on sneezing, coughing and running despite persistent urgency incontinence. She received mirabegron (25 mg per day) treatment for 3 months and then discontinued mirabegron treatment because of improvement of urgency incontinence. However, she complained of SUI with coughing, coital incontinence and persistent urgency incontinence at 1 year of telephone follow-up. She will be re-treated with mirabegron for her urgency incontinence.

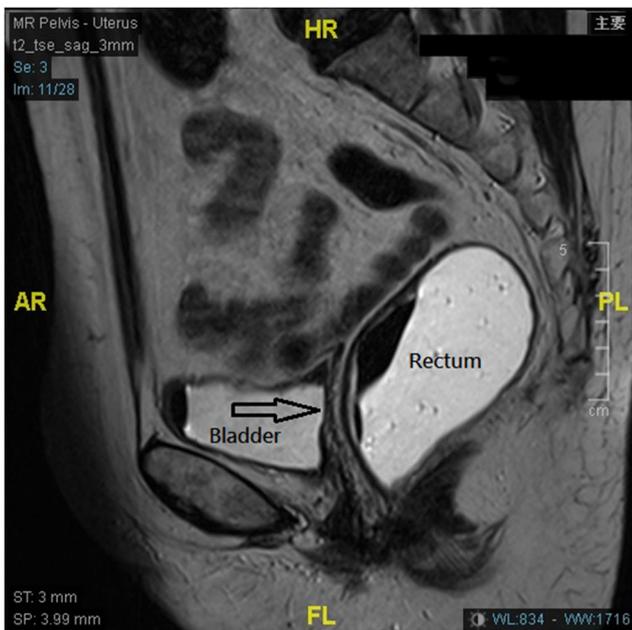


Fig. 2 Magnetic resonance imaging of the pelvis revealed absence of uterus and vaginal agenesis (arrow)



Fig. 4 The mid-urethral sling (arrow) can be seen between the tips of a right angle forceps after incisional opening of the anterior vaginal wall

Compliance with ethical standards

Conflicts of interest None.

Consent Written informed consent was obtained from the patient for publication of this case report and any accompanying images.

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