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CASE REPORT

Bilateral Hydronephrosis Secondary to Cystocele

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Abstract

A 75-year-old patient applied to the urology clinic with a cystocele and ultrasonography of urinary tract evidencing bilateral grade III hydronephrosis. She didn't complain about any urination problem. Gynecologic examination showed a marked cystocele throughout its entire extension on the anterior wall of vagina. The excretory urography confirmed the presence of bilateral hydronephrosis and 'narrowing distal ureters.' An anterior colporrhaphy and tension-free vaginal tape procedure were performed without any complication. At the third month of the follow-up, regression in hydronephrosis was observed and there was no urinary complaint. In women presenting dilatation of upper urinary tract, pelvic organ prolapses must be kept in mind and a convenient examination is the key point to rule it out. Unnoticed cases can lead to a wrong diagnosis and redundant surgery.

Keywords: Cystocele, hydronephrosis, renal failure, anterior colporrhaphy, TVT

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INTRODUCTION

Although it is uncommon, cystocele can cause compression of ureters and bilateral hydronephrosis, predisposing to renal impairment.[1,2] Other pelvic organ prolapses (POP) such as vaginal and uterine prolapsus can also be a reason of hydronephrosis and impairment in renal function leading to chronic renal failure and arterial hypertension.[3]

CLINICAL SUMMARY

A 75-year-old patient applied to the urology clinic with a cystocele and ultrasonography of urinary tract evidencing bilateral grade III hydronephrosis. She reported having four pregnancies in the past, with four normal deliveries and no other operation in her medical history. She didn't complain about any urination problem. Standard clinical and instrumental urogynecologic workup was done. Gynecologic examination showed a marked cystocele throughout its entire extension on the anterior wall of vagina. Laboratory tests did not show alteration in urea 28 mg% (normal <40 mg%), creatinine 0.80 mg% (normal <1.30 mg%), glycemia 100 mg% (normal <110 mg%), and urine examination. The excretory urography confirmed the presence of bilateral hydronephrosis and 'narrowing distal ureters' (Figure 1).

An anterior colporrhaphy and a tension-free vaginal tape (TVT) procedure were performed without any complication. At the third month of the follow-up, regression in hydronephrosis was observed (Figure 2) and there was no urinary complaint.

COMMENTS

There are a very limited number of issues about POP and hydronephrosis in the literature and they are mostly associated with uterine prolapsus.[3,4] A recently published study determined only 3.1% preoperative bilateral hydronephrosis in women with POP.[5] It is estimated that 4–7% patients with uterine prolapse have obstructive uropathy and the mechanism most likely is direct compression of ureters. In our case, we suspect that obstruction had occurred due to ureteral stretching itself that makes peristaltic movements difficult and ureteral compression against the pelvic organs as well.

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Figure 1. Excretory urography showing bilateral uretero-hydronephrosis.



Figure 2. Excretory urography 3 months after the operation.

These mechanisms could be the reason of radiological appearance of distal ureters. Excretory urography shows ureters terminating in a lower position and distally narrowed.

Delaere et al.[2] performed the fixation of the vaginal dome in sacral promontory complemented with colpourethropexy in Cooper's ligament. Our case was treated with simple vaginal colporrhaphy and TVT procedure. Surgical correction by either suprapubic or vaginal approach intends to resolve the obstructive urinary picture, even though it is known that it can predispose to stress urinary incontinence. TVT was done to prevent any stress incontinence pattern hidden because of the big cystocele.

In women presenting dilatation of upper urinary tract, POP must be kept in mind and a convenient examination is the key point to rule it out. Unnoticed cases can lead to a wrong diagnosis and redundant surgery.

***Declaration of interest*:** The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

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