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(CASE REPORT)

Severe multicompartment pelvic organ prolapse leading to bilateral upper urinary tract dilatation in a 72-year-old woman with cholestatic jaundice: Successful conservative management with a pessary

Oualid HERRAG *, Anass EL ALAOUI, Abdessamad MOTAOUAKIL, Anouar EL MOUDANE and Ali BARKI

Department of urology, Mohammed VI university medical center, Faculty of Medicine and Pharmacy, Mohammed the first university Oujda, Morocco.

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Abstract

Pelvic organ prolapse (POP) is common in elderly women but rarely causes upper urinary tract obstruction. We report the case of a 72-year-old multiparous woman (G5P5) with severe multicompartmental POP—grade IV uterine prolapse, grade III cystocele, and grade III rectocele—complicated by bilateral ureteropyelocaliceal dilatation. The patient also presented with cholestatic jaundice and a suspected hilar mass suggestive of cholangiocarcinoma. Cystoscopy showed ureteral orifices only visible after manual prolapse reduction, and cystography excluded vesicoureteral reflux. In the absence of acute infection or renal failure, and given her general frailty, we opted for conservative treatment with a vaginal pessary. After six weeks, the patient showed clinical improvement and imaging confirmed resolution of hydronephrosis. This case highlights the rare but significant impact of advanced POP on the upper urinary tract and supports pessary placement as a safe option in select frail patients.

Keywords: Pelvic Organ Prolapse; Ureteral Obstruction; Hydronephrosis; Pessary; Elderly Woman; Cholestatic Jaundice

1. Introduction

Pelvic organ prolapse (POP) frequently affects elderly and multiparous women due to pelvic floor weakening. While lower urinary tract symptoms are common, upper tract obstruction is rare, with incidence estimates between 3% and 30% in severe POP depending on diagnostic modality [1,2]. Hydronephrosis can result from extrinsic compression of the ureters at the pelvic brim. We present a rare case of severe multicompartment POP complicated by bilateral hydronephrosis in a woman with concomitant cholestatic jaundice and suspected cholangiocarcinoma, managed conservatively with pessary placement.

2. Case presentation

A 72-year-old multiparous woman (G5P5) presented with a 3-month history of pelvic heaviness, urinary frequency, progressive jaundice, pruritus, and anorexia. She had no fever, flank pain, hematuria, or weight loss. Her medical history was unremarkable.

* Corresponding author: Oualid HERRAG

On examination, the patient appeared asthenic and icteric. Gynecological examination revealed severe POP: grade IV uterine prolapse, grade III cystocele, and grade III rectocele. The cervix was completely externalized (figure1) ; the vaginal mucosa was intact with no ulceration.

Figure 1 Complete uterine prolapse (stage VI hysterocele) with externalization of the cervix

Renal function was normal (serum creatinine: 0.7 mg/dL; eGFR >87 mL/min/1.73 m^2). Urinalysis was sterile. Liver enzymes were cholestatic in pattern with elevated bilirubin, ALP, and GGT.

Pelvic ultrasound and contrast-enhanced CT revealed bilateral ureteropyelocaliceal dilatation, more marked on the left, without calculi or intrinsic obstruction. The bladder was compressed by the prolapsed uterus (figure 2). Additionally, intra- and extrahepatic bile ducts were dilated, with a suspected hilar mass suggestive of cholangiocarcinoma.

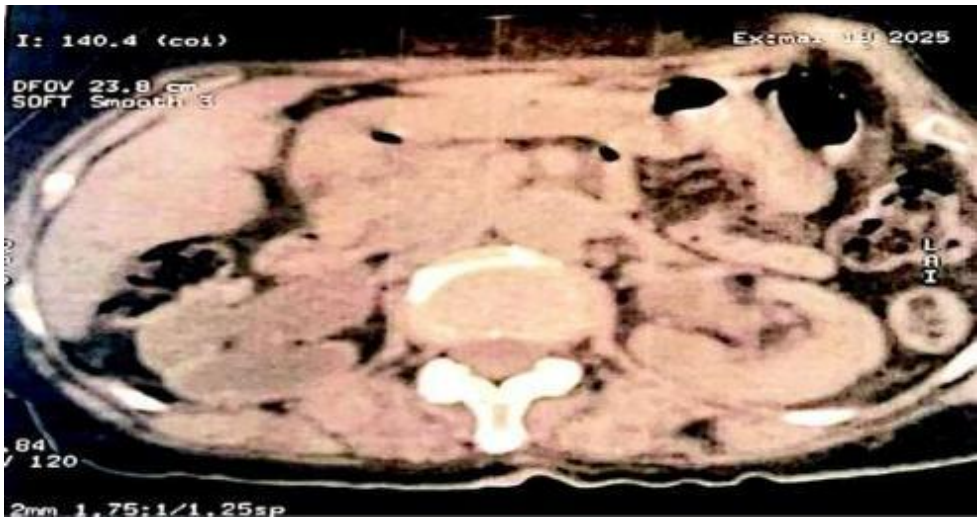

Figure 2 Axial abdominal CT scan showing bilateral ureteropyelocaliceal dilatation

Cystoscopy revealed non-visualization of ureteral orifices until manual prolapse reduction, confirming mechanical obstruction. Cystography showed a well-filled bladder with no reflux. Considering the preserved renal function, absence of infection, and the need to prioritize hepatobiliary assessment, we inserted a vaginal ring pessary under local anesthesia. The procedure was well tolerated and the patient was discharged the same day.

At six-week follow-up, the patient reported symptomatic relief. Ultrasound showed resolution of hydronephrosis and renal function remained stable.

3. Discussion

Although POP is common in older women, ureteral obstruction and hydronephrosis are rarely reported (3,4). Severe multicompartmental prolapse, as in our case (hysterocele, cystocele, rectocele), can cause mechanical compression of the distal ureters, particularly at the pelvic floor (2).

Reported incidence of hydronephrosis in advanced POP varies widely (3%–30%) depending on imaging modality and prolapse stage (3). Most patients remain asymptomatic, and diagnosis may be delayed. In the presence of acute renal failure or infection, urgent decompression is recommended (4).

In our case, cystoscopy provided additional evidence of extrinsic compression, as ureteral orifices were only visible after prolapse reduction. The absence of reflux on cystography excluded vesicoureteral incompetence, supporting the diagnosis of mechanical ureteral obstruction due to pelvic organ prolapse.

However, in patients without kidney failure, and particularly those with fragile general condition or competing comorbidities, conservative management is justified. Our patient also presented with cholestatic jaundice and suspected cholangiocarcinoma, which necessitated prioritization of hepatobiliary care. Interventional urology procedures such as stenting or nephrostomy would have added morbidity without clear benefit.

Pessary placement offers a non-invasive, reversible, and effective first-line approach. Several studies report regression of hydronephrosis and preservation of renal function after pessary use (5). Our case confirms this strategy can succeed even in complex clinical settings.

4. Conclusion

Advanced pelvic organ prolapse can rarely cause bilateral ureteral obstruction. In selected patients without infection or renal failure, especially those with significant comorbidities, conservative management with a pessary is a safe and effective therapeutic option.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of informed consent

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

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