

Obstructive Uropathy Caused by Uterine Prolapse



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Submission: June 13, 2017; Published: July 03, 2017

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Abstract

An 84-year-old women presented with renal function impairment. The imaging studies showed uterine prolapse, causing bilateral hydronephrosis and hydroureter. In multiparous elder women with renal function impairment, obstructive uropathy caused by pelvic organ prolapse should be considered as an correctable etiology.

Keywords: Hydronephrosis; Obstructive uropathy; Pelvic organ prolapse; Uterine prolapse

Abbreviations: POP: Pelvic Organ Prolapse

Introduction

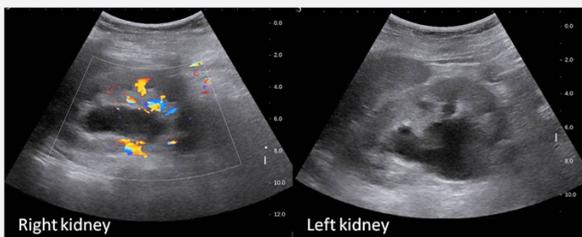


Figure 1: An 84-year-old female patient presents with renal function deterioration. Sonography shows bilateral hydronephrosis.

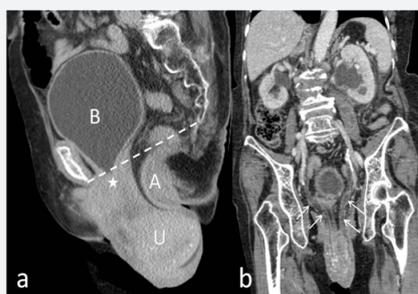


Figure 2: (a) Mid-sagittal reconstruction image of the contrast-enhanced CT scan shows prolapse of the uterus (U). The bladder neck (white asterisk) reveals beaking appearance and descends below the pubococcygeal line (white dash line). A = anal canal.

(b) Coronal reconstruction image shows tapering narrowing of bilateral distal ureters (arrows), indicating external compression.

An 84-year-old woman was presenting with recent decline in renal function. She had given birth 6 times by vaginal deliveries and has been experiencing urinary frequency for years. The abdominal sonogram showed bilateral hydronephrosis (Figure 1). The abdominal computed tomography revealed uterine prolapse with complete inversion. The bladder trigone was caudally displaced and bilateral lower ureters showed tapering appearance at genital hiatus level, indicating external compression (Figure 2).

Discussion

Pelvic organ prolapse (POP) results from weakness of the supporting structures of the middle compartment and commonly occur in multiparous women [1]. The association between advanced POP and hydronephrosis has been recognized. The incidence of hydronephrosis is 5% for the first degree POP and increases to about 40% for procidentia [2]. The obstruction occurs as the uterus descends; the bladder trigone and lower ureters were dragged down together, resulting in compression of the ureters between the uterus and the medial borders of the genital hiatus [3]. Renal involvement linked to POP ranges from acute to chronic renal failure. Prolonged duration may lead to renal impairment [4].

Conclusion

POP is a correctable cause of renal function impairment and should be considered when the patient is a multiparous elder woman.

Acknowledgement: This study was supported by grants from Taipei Veterans General Hospital (V106C-014), Taiwan.

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DOI: [10.19080/JOJUN.2017.03.555617](https://doi.org/10.19080/JOJUN.2017.03.555617)

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