

## EDİTÖRE MEKTUP / LETTER TO THE EDITOR

### Hydroureteronephrosis due to cystocele

Sistosele bağlı gelişen hidroüreteronefrozis

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To the Editor,

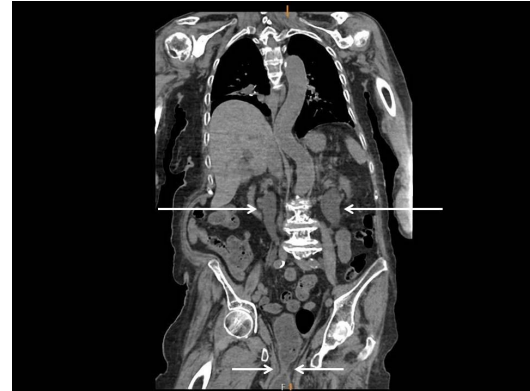
The etiologies of hydronephrosis occur elderly ages, are prostatic hypertrophy and urinary stone disease. Patients may present with abdominal distension, lower urinary system symptoms or renal colic. Ultrasound is a quick, noninvasive and sensitive method for confirming the diagnosis to upper urinary system obstruction. Computed tomography may always provide an accurate diagnosis. Cystocele is very rare cause of the bilaterally hydronephrosis.

In the first case, a 85-year old female patient without any history of a systemic disease was referred to the Emergency Room with complaint of hematuria and urinary bladder retention. Physical examination revealed the presence of the Pelvic Organ Prolapse Quantification (POP-Q) stage III-IV cystocele. On non-contrast abdomen computed tomography (CT) examination, bilaterally hydroureteronephrosis, urinary bladder distention, and stage IV cystocele (Fig. 1) were detected.

In the second case, a 70-year-old female patient presented with a vaginal huge mass to the emergency room. On physical examination, POP-Q stage IV cystocele and enterocele were detected. Contrast-enhanced abdomen CT revealed bilaterally hydroureteronephrosis (Figure 2a), urinary bladder calculi and stage IV cystocele (Figure 2b and 2c). The enterocele was also observed on CT images. Both of the patients were referred to the urological surgery department for accurate treatment.

POP-Q system defined as the herniation of the pelvic organs into the vagina or scrotum is called

cystocele if seen in the anterior compartment. The etiology of the cystocele, which affects approximately 30% of women over 50 years of age, includes pregnancy, child-birth, connective tissue abnormalities, weakness of the pelvic floor, aging, menopause and chronically elevated intra-abdominal pressure<sup>1,2</sup>.



**Figure 1. Coronal reformatted non-contrast abdomen CT revealed bilaterally hydroureteronephrosis (long white arrows) and stage IV cystocele at the level of the symphysis pubis (short white arrows).**

Affected patients may present with symptoms of urgency, hematuria, urinary tract infection, pelvic pain, bowel and sexual dysfunction. To establish the diagnosis of cystocele, the following criteria must be satisfied: the bladder should appear downward, bilaterally ureters may be dilated, and other pelvic organs may also be downward.

In the English literature, the hydronephrosis can be observed approximately 3.5% of all patients with pelvic prolapse. Magnetic resonance (MR) imaging and MR urography may help diagnosis and follow-up of the severity of the urinary tract obstruction<sup>3</sup>. There are many options for treatment including

hysterectomy, anterior-posterior repair, biological graft and native tissue repair<sup>4</sup>. As a result; as is evident on these two patient samples, especially in postmenopausal women, the cystocele should be considered in the differential diagnosis of hydroureteronephrosis.

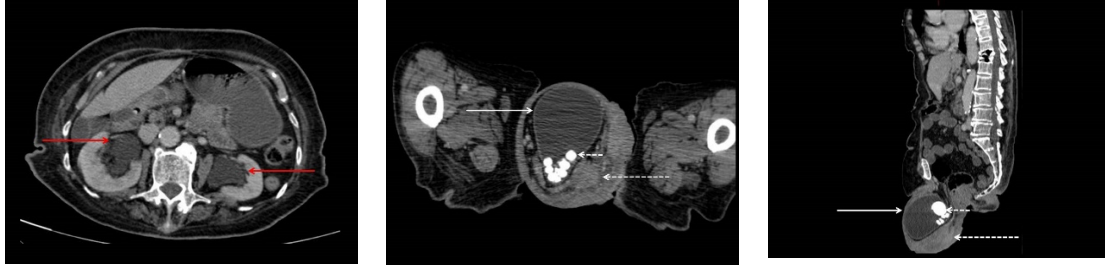


Figure 2. Axial (a,b) contrast-enhanced abdomen CT and sagittal reformatted image (c) show bilaterally hydroureteronephrosis (red arrows), stage IV cystocele (long white arrows), urinary bladder stones (short stippled arrows), and enterocele (long stippled arrows).

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## REFERENCES

1. Haylen BT, Maher CF, Barber MD, et al. An International Urogynecological Association (IUGA)/International Continence Society (ICS) joint report on the terminology for female pelvic organ prolapse (POP). *Neurourol Urodyn.* 2016;35:137-68.
2. Persu C, Chapple CR, Cauni V, Gutue S, Geavlete P. Pelvic Organ Prolapse Quantification System (POP-Q) – a new era in pelvic prolapse staging. *J Med Life.* 2011;4:75-81.
3. Kocaoglu M, Ilica A.T, Bulakbasi N, Ergin A, Ustunoz B, Sanal T et al. MR urography in pediatric uropathies with dilated urinary tracts. *Diagn Interv Radiol.* 2005;11:225-32.
4. Choi KH, Hong JY. Management of pelvic organ prolapse. *Korean J Urol.* 2014;55:693-702.