

Total Uterine Prolapse Induced Acute Renal Failure: A Case Report

Gurcaglar AA¹, Gozdemir Elif¹, Tekeli AT¹, Sokmen D² and Sokmen B³

¹Gynecology and Obstetrics Clinic, Amasya University, Turkey

²Istanbul Derindere Hospital, Urology Clinic, Turkey

³Istanbul Sisli Florence Nightingale Hospital, Radiology Clinic, Turkey

***Corresponding Author:** Elif Gozdemir, Amasya University, Medical Faculty, Sabuncuoğlu Şerefeddin Training and Research Hospital, Gynecology and Obstetrics Clinic, Kirazlıdere Street 05000 Amasya, Turkey.

Received: June 26, 2016; **Published:** July 11, 2016

Abstract

Pelvic organ prolapse is commonly seen in old and multiparous women and if it is not treated, it can lead to hydronephrosis and even obstructive uropathy. Early detection and treatment of pelvic organ prolapsed is very important in order to prevent the irreversible renal damage and chronic and acute renal failure. In this study, we reported a 74-year-old female patient who was admitted to the emergency service with a history of anuresis due to total uterine prolapse. Our patient had a bilateral hydronephrosis, urinary infection and acute renal failure. Upon the surgery, renal failure was not observed.

Keywords: Uterine prolapse; Acute renal failure; Obstructive uropathy

Introduction

Pelvic organ prolapse (POP) is frequently observed in multiparous older women and uterus, bladder and rectum come out of the vagina due to the weakening of the connective tissues in the pelvic floor. POP shows its effects on urinary system. The most common complication of POP is different levels of hydronephrosis and recurrent urinary tract infections. Advanced complications such as chronic or acute renal failure are observed in patients who cannot be treated [1]. In this case study, we report a 74-year-old woman who had post renal kidney failure that developed due to POP derived obstructive anuria.

Case

The 74-year-old woman (gravid IV, parity IV) was admitted to the emergency service due to the complaints of being unable to urinate for the last 1 day, severe nausea, and vomiting. According to the examinations, she was diagnosed with stage IV POP according to the Baden-Walker classification. There were erosion and ulceration of the cervix (Figure 1).



Figure 1: Grade IV genital prolapsed.

According to the vital findings; TA was 140/90 mmHg, her heart beat was 80 beat/minute, she was breathing frequently and with gaps, and she had generalized edema in her body. Findings of her laboratory analyses were in line with acute renal failure [Urea 226.3 mg/dl (normal range 10-50); creatinine 10.52 mg/dl (normal range 0.5-1.1); Uric acid 6.0 mg/dl (normal range 2.4-5.7)]. According to computer tomography (CT) that was used as an imaging method, bilateral grade III hydronephrosis was detected (Figure 2).

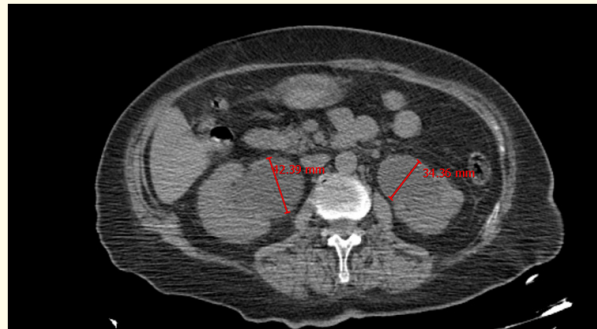


Figure 2: CT showing the bilateral hydronephrosis.

After the patient was given sedative agents, bilateral ureter DJ-catheter was placed by performing cystoscopy and the Foley catheter was inserted. It was observed that the renal functions became normal in five days with the help of the fluid-electrolyte suspension and antibiotics treatment and bilateral hydronephrosis was reduced. The general health status of the patient was enhanced and vaginal hysterectomy and colpocleisis operations were performed without complication under spinal anesthesia (Figure 3).



Figure 3: Operative view after the vaginal hysterectomy and colpocleisis.

The patient was controlled in the post-operation 1. week and 1. month and it was observed that the general health status of the patient and the renal functions were normal.

Discussion

POP is frequently seen in multiparous and older women particularly who gave birth 4 or more. Shuk., *et al.* showed that the mean age and parities of POP patients were respectively 71.8 and 4.3 [2]. In this case report, the age of the patient was 74 and she had 4 vaginal deliveries. The most common complications of POP patients are urinary tract infection and hydronephrosis. The recurrent urinary tract infections in women should be evaluated in terms of prolapse status of patients. It is observed in 5% of the women who have hydronephrosis 1. grade prolapse and 40% of them who have total prolapse [3]. In this study, our patient had grade IV prolapse according to the

Baden-Walker classification and she had the hydronephrosis which led to post-renal acute renal failure. It is thought that the ureter is compressed between blood vessels, the levator ani muscle, and uterine fundus and it is secondary to the obstruction in the lower ureter in the POP derived hydronephrosis. Bladder is compressed between the ureter, uterus and the medial border of the genital hiatus as a result of the caudal displacement of the trigone [4]. Hydronephrosis that occurs due to the compression of the ureter is observed in 7-17% of the cases in POP patients. Hydronephrosis is generally known as a mild and asymptomatic disease. However, it has been reported that 1.3 or 2.1% of the patients have advanced level of hydronephrosis [5-7]. Tomohiro., *et al.* reported a patient with a urinary tract infection which developed secondary to pelvic organ prolapse and the patient had a septic shock [8]. In this case study, we observed grade IV POP and its complications such as grade III hydronephrosis and post-renal acute kidney failure. It is very important to early diagnose and treat the POP in order to prevent the enhanced complications. When the patients are immediately treated, the complications decline. We diagnosed our patient with grade IV POP and we observed that grade III hydronephrosis declined and the renal functions became normal after the operations (vaginal hysterectomy and colposcleisis).

Conclusion

The early diagnosis and treatment of POP is very important in order to prevent the enhanced complications. Upon diagnosis, an appropriate treatment should be planned according to the age and the fertility status of the patient.

Bibliography

1. Gemer O., *et al.* "Prevalence of hydronephrosis in patients with genital prolapse". *European Journal of Obstetrics & Gynecology and Reproductive Biology* 86.1 (1999): 11-13.
2. Shuk YAH., *et al.* "A prospective study on the prevalence of hydronephrosis in women with pelvic organ prolapsed and their outcomes after treatment". *International Urogynecology Journal* 22.12 (2011): 1529-1534.
3. Stavropoulos NJ., *et al.* "Uterine prolapsed and urinary tract obstruction". *Acta Urologica Belgica* 63.4 (1995): 37-38.
4. Yanik FF., *et al.* "Acute renal failure-an unusual consequence of uterine prolapse". *Nephrology Dialysis Transplantation* 13.10 (1998): 2648-2650.
5. Beverly CM., *et al.* "Prevalence of hydronephrosis in patients undergoing surgery for pelvic organ prolapse". *Obstetrics & Gynecology* 90.1 (1997): 37-41.
6. Gemer O., *et al.* "Prevalence of hydronephrosis in patients with genital prolapse". *European Journal of Obstetrics & Gynecology and Reproductive Biology* 86.1 (1999): 11-13.
7. Shuk YAH., *et al.* "A prospective study on the prevalence of hydronephrosis in women with pelvic organ prolapsed and their outcomes after treatment". *International Urogynecology journal and pelvic floor dysfunction* 22.12 (2011): 1529-1534.
8. Matsuo T., *et al.* "Recovery from life-threatening pelvic organ prolapse in an 80-year-old Japanese woman: a case report". *Clinical Case Reports* 2.4 (2014): 118-121.

Volume 3 Issue 2 July 2016

© All rights reserved by Elif Gozdemir., et al.