Uterine Prolapse as a Cause of Chronic Renal Failure

Uterin Prolapsusa Bağlı Kronik Böbrek Yetmezliği

ABSTRACT

Uterine prolapse, common in old and multiparous women, has been reported as a rare cause of obstructive uropathy. In this case, the management of a 75-year-old female patient who presented at the outpatient clinic with a history of anuresis and diagnosed with total uterine prolapse, bilateral hydrenephrosis, urinary infection and acute renal failure is presented. The renal failure clinical picture regressed with appropriate treatment. However, the patient refused surgery and chose to have a pessary implemented. Four months after dismissal, she was readmitted to the hospital with recurrent renal failure that required dialysis treatment. The patient did not respond to therapy and was placed on a chronic dialysis program with a diagnosis of end-stage renal disease due to postrenal causes.

KEY WORDS: Uterine prolapse, Chronic renal failure, Obstructive uropathy

ÖZ


ANAHTAR SÖZCÜKLER: Uterin prolapsus, Kronik böbrek yetmezliği, Obstrüktif uropati

INTRODUCTION

Postrenal acute renal failure (ARF) develops as a result of diseases that are caused by the acute obstruction of urinary system and constitutes 5% of all ARF cases. Among the most frequent causes are prostate diseases, neurogenic bladder, use of anticholinergic drugs, urinary stones, clots, metastatic tumor infiltrations or pressure from exterior sources. Early management of the obstruction generally leads to reversal of renal failure, but if left untreated or if treated at a later stage, chronic renal failure may develop.

Uterine prolapse is the downward displacement of cervix and uterus from the vaginal axis. In the advanced form, the cervix is located outside of the introitus vagina. The prolapsed vagina might fall out on the urethra and the bladder at the anterior part and distal rectum at the posterior part. The severity of the prolapse is determined from the relation between the cervix and vaginal introitus (2). Renal failure caused by uterovaginal prolapse is rare.

In this case, we report a 75-year-old patient who developed chronic renal failure due to obstruction and was placed in a renal replacement program.

CASE

A 75-year-old female (gravid 5, para 5) was admitted to our nephrology outpatient unit with asthenia, fatigue, dysuria and
difficulty when urinating. Personal or family history was non-specific. Physical examination revealed a systolic and diastolic blood pressure level of 130/60 mmHg and globus vesicalis. Total (stage 4) uterine prolapse was detected at pelvic examination (Figure 1). White blood cell count was 10.700/mm³, hemoglobin 8.6 gr/dl, serum urea 202 mg/dl, creatinine 5.82 mg/dl, albumin 3.1 g/dl, sodium 138 mEq/L, potassium 6.3 mEq/L, calcium 9.1 mg/dl, phosphorus 6.5 mg/dl. There was a dominance of leukocytes on urinalysis.

**DISCUSSION**

Despite mostly being acute, postrenal causes may progress to chronic renal failure if the underlying cause is not treated.

Pelvic organ prolapse (POP) is relatively frequent in elderly women (1). Its etiology is considered to be multifactorial and the incidence and prevalence of pelvic organ prolapse increases with aging. POP prevalence increases at a rate of 40% every 10 years. Having the first birth before the age of 25, multiple births, history of hysterectomy, menopause, hormone replacement therapy use, pelvic neuropathy and congenital causes may lead to the development of chronic constipation that promotes the prolapse (1). The fact that our patient had an advanced age and was a multiparous woman could have contributed to the occurrence of the uterine prolapse.

In a study by Ellerkman et al, 237 women with prolapse were investigated and symptoms of prolapse (63%), urinary incontinence (73%), urination dysfunction (62%), and fecal incontinence (31%) were found in these patients (2). Repair of the prolapse is the suggested method to treat urination problems, stress and urge incontinence in more than half of the patients. Generally, uterine prolapse may cause hydronephrosis regardless of an accompanying renal failure. The severity of hydronephrosis is related to the severity of the prolapse (2). Chuang et al. reported bilateral hydronephrosis with normal renal functions in 2 patients with uterine prolapse and recovery from hydronephrosis by surgical treatment of the prolapse (3). The authors emphasized the importance of early diagnosis and treatment for the protection of renal functions. Hydronephrosis caused by uterine prolapse may cause acute or chronic renal failure unless an intervention is performed at an early stage. Chitale et al. also reported bilateral hydronephrosis with ARF due to uterine prolapse in two patients aged 73 and 81, and they stated recovery from ARF by manual reduction and pessary application (4).

Chronic hydronephrosis and recurring urinary infections are thought to have an effect on development of ESRD. ESRD development was reported by Sanai et al. in a 64-year-old case known to have uterine prolapse (5).

In our case an uterine prolapse-induced ESRD was observed. The renal failure of our case was related to obstruction and urinary infection during the first hospital admission and it receded with the help of manual reduction, intravenous liquid and antibiotherapy. However, the patient rejected surgery for treatment of the prolapse and chose to have a pessary inserted. After discharge, the patient was lost-to follow-up until she was seen at the emergency room with complaints of fatigue, nausea and vomiting. The patient underwent hemodialysis due to the uremic findings. The pessary application remained insufficient for the reduction of prolapse in the patient and recurrence of the hydronephrosis was observed on the follow-up ultrasonography. The patients’ renal failure did not respond to treatment and she was put on a chronic hemodialysis program.
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