Renal Failure Due to Severe Pelvic Organ Prolapse

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Objective: Pelvic organ prolapse (POP) is not uncommon in multi-parous or elderly women. One mechanism that may be responsible for renal failure in the presence of POP is chronic retention due to bladder outlet obstruction. We herein presented a case of neglected severe POP in a 60-year-old patient that resulted in renal failure.

Case: A 60-year-old Japanese woman had a sensation of a vulvar mass since the age of 40. She had general malaise, reduced appetite, and weight loss, but did not exhibit any urinary symptoms or a vulvar mass. Computed tomography (CT) revealed a vulvar mass, and the patient was diagnosed with POP-Q (pelvic organ prolapse quantification) stage 4 following a pelvic examination. A blood examination showed an increased inflammatory response (number of leukocytes 24,600/µl, C-reactive protein 29.10 mg/dl) and renal dysfunction (creatinine 6.40 mg/dl, blood urea nitrogen 83.5 mg/dl). She was initially treated with bladder drainage and antibacterial therapy. Seven months after the initiation of bladder drainage, colpocleisis and urethroplasty were performed following the manual repositioning of POP.

Conclusion: This patient may have avoided long-term hospital care if she had undergone a gynecological examination earlier. General physicians need to consider POP and learn to perform a basic gynecological examination when examining older women, who are more likely to ignore or conceal symptoms, similar to this case.

Keywords: pelvic organ prolapse, renal failure, general practitioner, gynecological examination

Introduction
POP occurs when the uterus or vaginal walls weaken and descend, causing various symptoms including vulvar discomfort and lower urinary tract symptoms. The entire vagina is everted and there is often an accompanying cystocele and/or rectocele, as well as enterocele. One mechanism that may be responsible for renal failure in the presence of POP is chronic retention due to bladder outlet obstruction.1 We herein presented a case of neglected severe POP in a 60-year-old patient that resulted in renal failure.

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A 60-year-old Japanese woman (parity 2) had a sensation of a vulvar mass since the age of 40 and reversed the prolapsed uterus by herself. However, she was unable to reverse the prolapse from the age of 55, and had left it intact.

She was referred to the Department of Internal Medicine in our hospital with general malaise, reduced appetite, and a weight loss of 8 kg in one month, but did not exhibit urinary symptoms or a vulvar mass. A blood examination showed an increased inflammatory response (number of leukocytes 24,600/µl, C-reactive protein 29.10 mg/dl) and renal failure (creatinine 6.40 mg/dl, blood urea nitrogen 83.5 mg/dl). CT revealed a vulvar mass (16 cm) that was suspected to be POP, and also that the bladder had expanded with a large amount of urine in the mass (Figure 1). She was examined by a gynecologist who diagnosed POP-Q stage 4 by a pelvic examination (Figure 2). The patient was also diagnosed with severe urinary infection because of chronic retention and bacteriuria.

The patient was initially treated with bladder drainage and antibacterial therapy. Renal failure and the enhanced inflammatory response gradually recovered 2 months after the initiation of bladder drainage (creatinine 1.59 mg/dl, blood urea nitrogen 12.6 mg/dl, number of leukocytes 10,200/µl, C-reactive protein 0.49 mg/dl). Seven months after bladder drainage started, colpocleisis and urethroplasty were performed following the manual repositioning of POP.

### Discussion

POP is not uncommon in multi-parous or elderly women. In a Swedish community-based study, the prevalence of any degree of prolapse in women aged 20 to 59 years old was reported to be 30.8%. POP may be associated with minor or major urological complications depending on its severity. One mechanism responsible for renal failure in the presence of POP is chronic retention due to bladder outlet obstruction. Complications include urinary tract infection, renal dysfunction, and hydronephrosis, and may ultimately lead to acute or chronic renal failure. POP with renal failure requires immediately treatment including bladder drainage, vaginal pessary insertion, and surgery. We need to consider the activities of daily living of patients and improving their quality of life when recommending surgical treatments and selecting surgical methods.

Few studies have suggested that general practitioners need to learn to perform a gynecological examination. In a rural community in Norway, general practitioners performed a gynecological examination, stress provocation test, and pad weighing test and made a 48-h frequency/volume chart, which resulted in 38% of the women examined being diagnosed with severe.
genital prolapse. On the other hand, only 13.3% of the 5,164 respondents who underwent their last pelvic examination at Kaiser Permanente in northern California, in which 18% had seen their own primary care physician, reported preferring their own primary care physician, whereas 60.3% preferred a gynecologist for basic gynecology care. In the Netherlands, 86% of the 96 respondents that used pessaries for the treatment of POP underwent their first follow-up with a gynecologist, whereas only 2% of the respondents were delegated to either a general practitioner or nurse practitioner for the first follow-up visit. In order to provide integrated, comprehensive primary care, we must adapt to the patient’s preferences and symptoms. In this case, the patient did not exhibit urinary symptoms or a vulvar mass in the first internal medical examination; however, CT revealed a large vulvar mass in which the bladder had expanded with a large volume of urine. She may have avoided long-term hospital care if she had undergone a gynecological examination earlier. General physicians need to consider POP and learn to perform a basic gynecological examination when examining older women.

In summary, we herein presented a case of neglected severe POP in a 60-year-old patient that resulted in renal failure. Although such a condition is rare, general physicians need to consider POP in elderly women, who are more likely to ignore or conceal symptoms.

References