

## Urinary Incontinence and Physician's Attitude

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Urinary incontinence (UI) is the complaint of any involuntary leakage of urine. It is a common problem in geriatric people. However, many patients do not want to reveal their condition and seek medical help due to their shame. In spite of a public awareness campaign by associated scientific societies, many cases remain hidden. Physicians should be well-informed about UI and demonstrate a supportive attitude toward the patients.

The process of micturition involves a complex of neural circuits in the brain and spinal cord. The central nervous system coordinates the activity of the smooth muscles in the bladder and urethra. These circuits act as on-off switches to alternate the lower urinary tract between two modes of operation: storage and elimination (1). Voiding dysfunction ranges from urinary retention to incontinence. UI results from storage dysfunction and is at the extreme end of storage failure. The amount of incontinence varies from a very small volume to a great deal. It can be caused by bladder and/or sphincter disorders.

Incontinence is not a normal part of aging, but is an age-related condition. Changes in bladder and pelvic floor function can result in the loss of bladder control in older adults. Risk factors include age, cognitive impairment, mobility impairment, diabetes, neurologic conditions, and other lower urinary tract symptoms. Factors increasing the risk in women include white race, increased parity, oral hormone therapy, higher body mass index, and menopause. In men, radical prostatectomy remains strongly associated with transient or persistent incontinence (2).

The prevalence of UI has been reported to range from 5% to 53% in women and from 1.6% to 24% in men. It affects between 30% and 60% of older women and between 10% and 35% of older men in the community, and up to 80% of nursing home residents. In a Korean telephone survey of the community to estimate the prevalence of UI in women between 30 and 75 years of age, 1,300 were interviewed (response rate 86.9%). UI was reported by 40.8%, and 22.9%, 3.1%, and 14.9% reported pure stress, urge, and mixed UI, respectively (3).

UI is not a life-threatening disease, but it can greatly hurt quality of life. In fact, its impact on quality of life can be worse, compared with that of other common medical diseases, such as dia-

betes mellitus, stroke, and arthritis. Most UI patients suffer from anxiety, depression, and finally social isolation. It is very well known that UI is related to an increased risk of falls and fractures, and admission to long-term nursing care units.

UI has multiple causes and can be classified into stress, urge, neuropathic, congenital, overflow, iatrogenic, and fistulous incontinence. The common types of UI are stress, urge, and mixed incontinence. Stress incontinence is the involuntary leakage of urine on effort or exertion, with activities that increase intra-abdominal pressure, such as coughing and laughing. Urge incontinence is the involuntary leakage of urine accompanied by or immediately preceded by a sensation of urgency, that is, the sudden compelling desire to pass urine which is difficult to defer (4). In older women, mixed incontinence is the most common type, accounting for about half of all cases. In older men, urge incontinence is most common.

The financial, social, and psychological burden all contribute to the cost of stress UI, and thus, it is difficult to quantify its true economic impact. It is thought that over \$12 billion is spent on UI annually, and the amount continues to grow in the United States (5). The overall cost can become a significant financial burden to a patient, and total costs related to UI in nursing facilities for elderly people are thought to reach more than \$2 billion annually.

Detection is the first step in UI evaluation. The basic evaluation for UI should include taking a medical history, physical examination, postvoid residual urine test, urine analysis, incontinence questionnaire for subjective assessment, and voiding diary. The urodynamic test is the most accurate method for determining the cause of UI.

Behavioral treatments have shown to be effective, reducing leakage by 50% to 80%, with 10% to 30% of patients achieving continence. The purpose of pelvic floor muscle (Kegel) exercises is to strengthen the pelvic floor muscles, and then to prevent urine leakage. One exercise consists of a several-second squeeze and a several-second relaxation. The exercises should be practiced many times throughout the day. Additionally, behavioral lifestyle changes are generally recommended.

Various drugs are available to treat UI, depending on the underlying etiology. If UI is caused by detrusor overactivity or low bladder compliance, the therapy is to eliminate or suppress involuntary detrusor contraction medically or surgically. An initial approach is the prescription of an antimuscarinic drug, which targets the bladder smooth muscle leading to relaxation. These drugs are most often used to treat urgency or mixed incontinence. If UI is caused by sphincteric dysfunction, the therapy is to strengthen the pelvic floor muscle or sphincter medically or surgically. Unfortunately, few pharmacologic treatments have been studied for stress UI. Surgical treatments, such as transobturator tape (TOT) or tension-free vaginal tape (TVT), are considered the gold standard. The cure rate of these surgeries was reported to be 80-90% in many studies and the complication rate was about 5%. It is possible to significantly improve patients' quality of life by effectively identifying and treating UI.

Patients with UI tend to hide their symptoms. Sometimes they do not want to talk about it even with physicians. All physicians should ask their patients about urinary symptoms including UI in regular check-ups, even when patients complain of other symptoms. Patients will thank physicians for being asked and for the opportunity to improve their quality of life. In the elderly, UI can be an important factor in the decision to place an elderly person in a nursing home. UI is frequently associated with an increased risk of global functional impairment. In some respects, UI may be an important early marker signaling the onset of frailty. In most cases, caregivers tend to ignore patients' position. These patients do not have the capability of complaining of the discomfort and inconvenience of UI itself or of the

unfavorable methods of management. This can be a matter of self-esteem and human dignity. All patients with UI have the right to receive good care, and all physicians have an obligation to give good care to their patients.

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