Efficacy of Bladder Training by Care Managers for the Elderly with Overactive Bladder Living at Home

Hypothesis / aims of study

With the aging of society, it is not uncommon in Japan to find the old caring for the elderly. Overactive bladder syndrome (OAB) is the most common cause of urinary incontinence and reduced quality of life in the older population. The problems of lower urinary tract dysfunction are complicated in the diverse living environments experienced by the elderly; however, it is important to successfully manage such problems for elderly people to continue living at home. For the prevention and treatment of urinary incontinence, we evaluated the efficacy of bladder training delivered by care managers for the elderly with OAB living at home.

Study design, materials and methods

We enrolled 13 elderly people living at home (4 men and 9 women, mean age 72.2, range 65 - 82 years) who had high activities of daily living, normal cognitive function, and OAB. We evaluated the urinary conditions using a diagnostic questionnaire for urinary incontinence, bladder diary, urinalysis, and measurement of residual urine. We excluded those with urinary tract infection or residual urine volume greater than 50 ml. The nocturnal polyuria index was calculated by the formula: nocturnal polyuria index = nocturnal urine volume / 24-hour production. Nocturnal polyuria was defined as nocturnal polyuria index greater than 0.33. Under the monthly guidance of their care managers, the elderly underwent bladder training using a bladder diary and attempted to improve their living conditions to facilitate their urinary health for 3 months. After 12 months we evaluated urinary control.

Results

According to the bladder diary, mean micturition frequency was 7.3 in the day and 2.4 overnight. Seven subjects (53.8%) had nocturnal polyuria and 4 had urge incontinence. Of the 13 elderly, 8 could complete the 3-month bladder training program. In these subjects, mean micturition frequency was decreased to 5.9 in the day, and to 1.8 overnight. The maximum voided volume increased from 297 ml to 365 ml, and 5 had nocturnal polyuria. After 12 months, the increase in maximum voided volume was maintained at 389 ml, and micturition frequency was 5.6 in the day and 1.6 overnight. Three of the 4 elderly with urge incontinence achieved urinary continence. The 5 elderly with nocturnal polyuria were unchanged.

Interpretation of results

The bladder training by care managers increased the voiding interval, thus increasing voided volume and bladder capacity, which helped to control urgency and urge incontinence. However, it was not effective in improving nocturnal polyuria.

Concluding message

Our study suggested that urinary control programs delivered by ancillary care staff are feasible and may reduce the burden of care for urinary management experienced by caregivers of the elderly at home. However, the elderly with OAB who gain no benefit from bladder training require urological treatment such as anticholinergic therapy.