

## ASSOCIATION BETWEEN URINARY INCONTINENCE AND PAIN IN COMMUNITY-DWELLING ELDERLY WOMEN

### Hypothesis / aims of study

Urinary incontinence and pain are two of the most common problems experienced by elderly people, and chronic pain has been associated with mobility limitations, and future dependence in activities of daily living. Is urinary incontinence associated with pain in community-dwelling elderly women? The aim of this study was to explore the relationship between urinary incontinence and pain in elderly community-dwelling Japanese women.

### Study design, materials and methods

The subjects included 1,399 women aged 75 or older who participated in a comprehensive health examination which included a face-to-face interview and physical fitness tests. In order to evaluate the relationship between urinary incontinence and pain, we defined urinary incontinence as those who experienced urine leakage episodes more than once per a week. The data was analyzed using the chi-square test for categorical variables, and multivariate logistic regression models were used to assess related factors associated with urinary incontinence.

### Results

The prevalence of urinary incontinence in this population was 18.5%, out of which 29.1% had stress, 25.1% had urge, and 45.8% had mixed urinary incontinence. The subjects with urinary incontinence were significantly older, heavier, and had higher fat mass, as well as a lower level of walking ability and balance function compared to normal subjects. Also, subjects with urinary incontinence were more likely to have reported osteoarthritis (OA) and greater levels of pain.

The prevalence of urinary incontinence was significantly higher in subjects with pain (21.9%) than without pain (12.5%) (chi-square value=18.749,  $p<0.001$ ), and higher in subjects with multi-site pain than single-site pain. The most common sites of pain observed were in the lower back and knee, and while urine leakage episodes were significantly higher in those with severe lower back pain, it was not significant in those with severe knee pain.

According to the multiple logistic model, urinary incontinence was significantly associated with age (odd ratio(OR)=1.08, 95% confidence interval (CI)=1.03-1.14), usual walking speed (OR=0.37, 95%CI=0.21-0.64), fat mass (OR=1.05, 95%CI=1.02-1.09), OA history (OR=2.38, 95%CI=1.06-5.16), and pain (OR=1.56, 95%CI=1.11-2.22).

### Interpretation of results

The relationship between urinary incontinence and pain and/or OA history in elderly women has been understudied. Our data suggest that elderly women who have urinary incontinence should have a multifactorial risk assessment that includes a pain and/or OA history assessment.

### Concluding message

Urinary incontinence was significantly associated with pain, severe back pain, and OA history.

### Disclosures

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