

THE EFFECTS OF VOIDING DYSFUNCTION ON REHABILITATION EFFECTIVENESS AND OUTCOMES IN PATIENTS ADMITTED TO RECOVERY PHASE REHABILITATION WARD

Hypothesis / aims of study

Prevalence of urinary incontinence and voiding dysfunction in patients admitted to recovery phase rehabilitation ward was investigated. Furthermore, the relationship between the voiding dysfunction and rehabilitation outcomes was investigated.

Study design, materials and methods

This retrospective study was included 156 patients (66 men, 90 women, mean age: 77.0 ± 10.9 years) who were admitted to recovery phase rehabilitation ward from April 1, 2015 to February 29, 2016. Underlying illness were cerebrovascular disease in 81 patients and orthopedic diseases in 75 patients. We examined prevalence of urinary incontinence, home return rate, Functional Independence Measure (FIM) scores, mobilization capacity and Mini-mental state examination (MMSE) scores from the medical records. When a patient had urinary incontinence, residual urine volume was investigated using an ultrasonic device Yuririn (USH-052) to disclose voiding dysfunction. Based on the residual urine using the ultrasonic device Yuririn, the patients were divided two groups: those who had urinary incontinence (incontinence group) and those who had no urinary incontinence (non-incontinence group). Furthermore, the incontinence group was divided into functional urinary incontinence group and voiding dysfunction group, and background of the two groups was compared using statistical unpaired t-test and the χ^2 test analysis. A significance level of 0.05 was considered significant.

Results

Of all the patients, 75 patients (48.0%) were classified into the incontinence group, and 81 patients (51.9%) into the non-incontinence group. The home return rate was higher in the non-incontinence group (91.0%) than the incontinence group (35.1%) (figure1). Based on the residual urine volume, 39 patients were included into the functional urinary disorder group and 36 patients into the voiding dysfunction group. Regarding the home return rate, there was no statistically significant difference between the both groups. However, the FIM scores at the point of discharge and the improvement rate of FIM and mobilization capacity at the point of discharge were significantly higher in the functional urinary disorder group ($p < 0.05$). (figure2)

Interpretation of results

The patients with urinary dysfunction, mobilization capacity and cognitive dysfunctions of recovery phase rehabilitation ward could have negative effects on their home returns rate. These results could indicate that the only improvement of mobilization capacity could not lead to increasing of home return rate, and adequate evaluation of the urinary function was also needed. However, under the circumstances there are very few urologists, who specialize in urinary dysfunction, in rehabilitation hospitals. That is why it is very difficult to consult them regularly about some problem of voiding dysfunction. Therefore, it is necessary that not only physicians who are not expert of voiding dysfunction but also health-care professionals share their knowledge of voiding function for the patients, and I would like to work on organizing such systems in the future.

Concluding message

It is necessary to define some methods of detection and interventions for voiding dysfunction in the patients who are admitted to recovery phase rehabilitation ward and verify its effects on the home return rate.

The home return rate

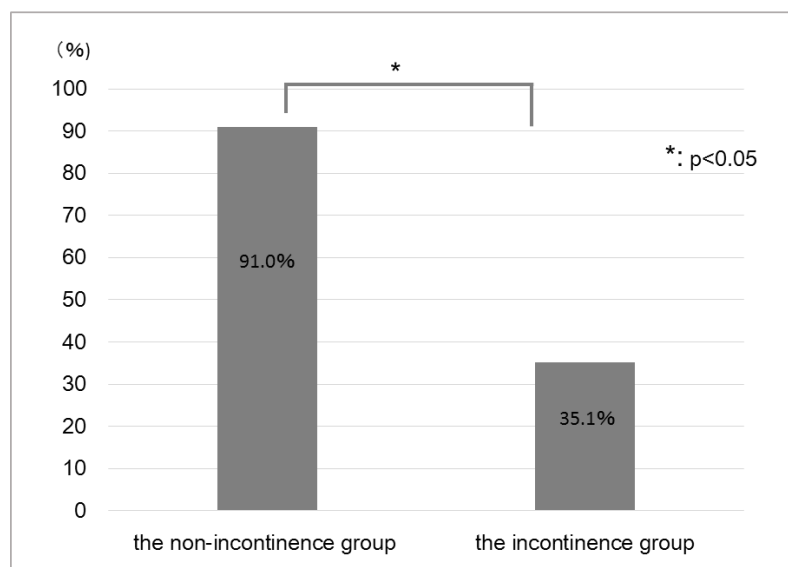


figure1

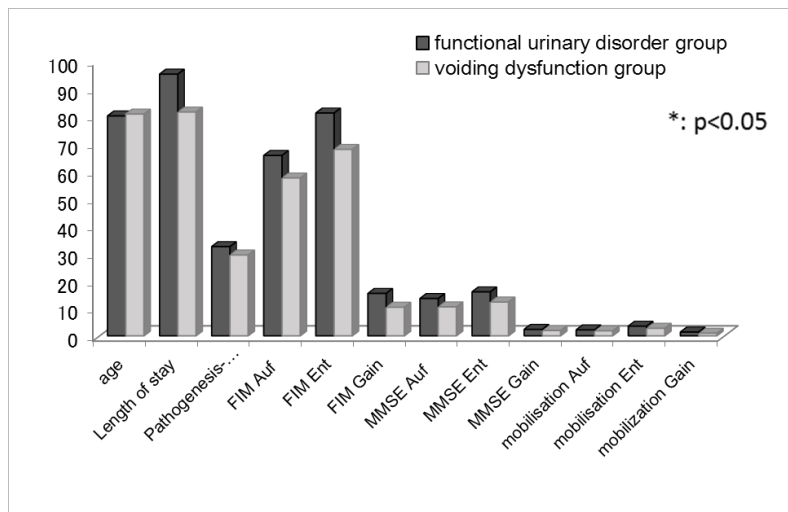


figure2

Disclosures

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