WOMEN WITH TRAUMATIC BRAIN INJURY HISTORY HAVE INCREASED RISK OF URINARY INCONTINENCE : A NATIONWIDE POPULATION-BASED STUDY

Hypothesis / aims of study

Previous studies on urinary incontinence after traumatic brain injury (TBI) have been limited to case studies with small patient numbers investigated in neurological rehabilitation units. This nationwide, population-based prospective study aimed to examine the relationship between TBI in Taiwanese women and their risk of developing urinary incontinence.

Study design, materials and methods

This study used data from the Taiwan National Health Insurance Research Database. The study was based on 20,342 female patients newly diagnosed with TBI from 2001 to 2007 together with 61,026 matched enrollees without a history of TBI as a comparison cohort. All patients were tracked for a 1-year period from their index healthcare encounter to identify those who developed subsequent urinary incontinence. The stratified Cox proportional hazards models were performed to compute the risk of urinary incontinence between cohorts.

Results

Of 81,368 patients, 210 (1.03 %) from the TBI group and 298(0.49 %) from the comparison group had a diagnosis of urinary incontinence (UI) during the follow-up period. The stratified Cox proportional analysis showed that after adjusting for monthly income, geographic region, and urbanization level of the community in which the patient resided, the increased UI risk of patients with TBI persisted at about the same level as in the unadjusted analysis (hazard ratio, 2.11; 95% CI, 1.76 to 2.52).

Interpretation of results

Patients with a TBI diagnosis have increased risk of urinary incontinence exists at the first year follow-up.

Concluding message

Our results suggest that an increased risk of urinary incontinence exists at the first year follow-up in patients with a TBI diagnosis.

References

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| Is this a clinical trial? | No |
| What were the subjects in the study? | HUMAN |
| Was this study approved by an ethics committee? | Yes |
| Specify Name of Ethics Committee | e Institutional Review Board (IRB) of Taipei Medical University |
| Was the Declaration of Helsinki followed? | Yes |
| Was informed consent obtained from the patients? | Yes |