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Variability of voiding diary data after stroke

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Keywords: Voiding diary; Stroke; Urinary disorder

Urinary disorders after stroke are recurrent [1,2] usually correlated to severe disability, and a high rate of institutionalization. The voiding diary use allows can provide an objective vision with quantitative parameter.

In this study, we propose to determine the variability and the validity of voiding diary data in patients after stroke.

Prospective study including 15 patients admitted after stroke.

We proceed to the realization of a 3 days voiding diary. The data are collected by nurse and then examined using SPSS 14.0 software.

Good reproducibility is noted for diurn and nocturn urinary frequency and for mean minimal and maximal voiding volume. However, the mean void volume was higher on the second day compared to the first day. Regarding the RPM medium, minimum and maximum, no statistically significant variation was observed during the three days.

The voiding diary represents a further important assessment of vesico-sphincter disorders with recognized superiority over medical history data [3,4].

This study highlights the lack of significant change for the majority of items supplied in patients who experienced a stroke. However, work on a larger scale is needed to establish the reproducibility of the data set of voiding diary, including a performance period of potential to be adapted according to study objectives, the patient included and frequency of any vesico-sphincter disorders mentioned.

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Evaluation of urinary disorders after stroke in geriatric SSR

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Keywords: Elderly; Stroke; Urinary disorders

Urinary disorders after stroke are predictive of worse functional outcome. They are not well studied in the older population.

Objectives.— Investigate the prevalence of different types of urinary disorders, factors associated with their existence and their evolution, and how we can care for patients over 75 years hospitalized in SSR in the aftermath of stroke.

Methods.— Retrospective study of 88 patients over 75 years hospitalized in SSR Geriatric unit at Bordeaux University Hospital in the aftermath of a stroke

between January 1st and December 31, 2010. The data analyzed related comorbidities (CIRS-G), associated treatments, date, type and topography of stroke, and clinical presentation (NIHSS and Barthel scores, cognition, description of urinary disorders and their management).

At 1 month and 2 months post-stroke we evaluated the persistence or not of urinary disorders and type of care, Barthel score, the presence or absence of a urinary tract infection.

Results.— The mean age was 84 years. The prevalence of urinary disorders in the initial assessment was 68.2% including 35.2% of retentions. Situational incontinence was the most frequent and increased to 2 months. The existence of urinary disorders was related to the NIHSS score, with aphasia, a low Barthel and a urinary tract infection. The progression of Barthel and the existence of a retention supported by hetero-intermittent catheterization were associated with more favorable evolution.

The hetero-intermittent catheterization was an independent predictor of favorable evolution of urinary disorders.

Discussion.— Our results confirm the usefulness of hetero-intermittent catheterization even in this population and the relationship between functional improvement and favorable evolution of urinary disorders. Particular attention to situational incontinence should be given in these elderly patients.

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Influence of ice water test on first desire to void on cystometry: Retrospective study of 165 patients

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Keywords: Cystometry; Need to void; Ice water test

Aims.— Need to void and cold perception during bladder filling (CPBF) are mediated by different pathways respectively fibers A delta (mechanoreceptor) and C (thermal receptors (TRPM8)) [1], but could cold water bladder filling interact on need to void? The aim was to study the effect of cold water bladder filling on need to void.

Material and methods.— All patients who had underwent during 2010 a cystometry at 100 mL/mn with ambient temperature water followed by a cystometry at 100 mL/mn with 4 °C water (ice water test, IWT) in order to search a detrusor overactivity were included. Patients who did not mention any need to void during one of the cystometries were excluded. Volumes at first need to void were compared using paired student *t* test.

Results.— One hundred and sixty five patients had been included (83 women, 82 men) mean age 49.9 years, (sd 14.2 min 16 max 81) of whom 102 had neurological disease. Twenty-eight patients had detrusor overactivity on ambient temperature cystometry (ATC) and 42 on IWT.

Mean cystometric capacity was 433.4 mL (sd 107.3 min 91 max 831) for ACT and 379.9 mL (sd 104.4 min 78 max 865) for IWT ($P = 2.17E-10$).

Mean volume at first need to void was 275.9 mL (sd 117.4 min 16 max 690 for ATC and 219.5 mL (sd 117.2 min 29 max 635) for IWT ($P = 6.9E-10$).

Comments.— Ice Water Test [2] is currently used to detect a detrusor overactivity giving evidence of C-reflex reactivation in spinal cord lesion or bladder outlet obstruction.

First need to void sooner arisen with ice water test suggested a direct urothelial sensitisation or modification of the spinal modulation of A delta afferent message by the preceding C fibers message, or even modification of the cortical integration of A delta afferent signal.

Conclusion.— First need to void seemed to arise sooner with cold bladder filling than with ambient temperature giving evidence of interaction between those sensory pathways.

References

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