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Title: PREVALENCE, BOTHER AND QUALITY OF LIFE EFFECTS OF LOWER URINARY TRACT SYMPTOMS AFTER STROKE

Aims of Study:

Lower urinary tract symptoms (LUTS) including urinary incontinence (UI) are commonly reported in adult populations. UI in particular, has been reported in up to 15-20% of community dwelling adults(1). We aimed to examine the prevalence of LUTS especially UI after stroke. In more detail, the aims of the study were:

1. To determine the prevalence of lower urinary tract symptoms (LUTS) including frequency, nocturia, urge incontinence and stress incontinence at 3 and 12 months after stroke.
2. To asses the bother and qualitative of life effects of LUTS at 3 and 12 months after stroke.
3. To determine the use of continence aids in a stroke population.
4. To determine risk factors for the development of urinary incontinence (UI) after stroke, and effect of urinary incontinence on outcome after stroke.

Methods:

A questionnaire was administered to all subjects consenting to participate in the North East Melbourne Stroke Incidence Study (NEMESIS) between June 1997 and April 1999. NEMESIS is a community based stroke census of all strokes occurring within a defined geographical boundary in metropolitan Melbourne. The questionnaire was adapted from the ICS*male* and ICS*female* questionnaires (2,3). Presence of lower urinary tract symptoms including stress and urge UI were sought. Urinary incontinence was registered as a positive response to either question: “Over the last four weeks, have there been times when urine has leaked before you could get to the toilet?” or “Over the last four weeks, has urine leaked when you were physically active, exerted yourself, coughed or sneezed?” The frequency of the loss was rated according to the ICS questionnaires and “bother” components for each symptom was also recorded. A LUTS specific quality of life question was included (4). Additional information pertaining to stroke type, functional score, cognitive status and discharge destination was collected. The questionnaire was administered at 3 months and 12 months after stroke.

Results:

363 three-month post stroke and 452 twelve-month post-stroke questionnaires were completed. Average age of subjects was 73 years. UI was reported in 44% and 41% respectively. In those subjects reporting UI, urge UI alone occurred in 49%, stress UI alone in 14%, mixed UI in 33% and 4% used a permanent indwelling catheter. “Bothersome” UI was reported in 22% and 23% of all stroke patients. 42% of incontinent patients reported “mixed feelings, mostly dissatisfied, very unhappy or desperate” in response to a UI specific quality of life question. There was little change between results at 3 months and 12 months after stroke. UI was more commonly associated with mortality and nursing home placement.

Nocturia was reported in over 50% of cases. 21% reported nocturia twice per night, 9% reported three times per night and 14% reported nocturia of four times or more per night. Nocturia was considered either 'not a problem' or 'a bit of a problem' in most cases. 10% reported the nocturia was "quite a problem' or 'a serious problem'.

Continence aids such as pads, urinals, commodes and absorbent sheets were widely used in both continent and incontinent subjects. Continent subjects were using the aids to minimise the impact of their impaired mobility (for toiletting), symptoms of nocturia and to promote confidence due to fear of incontinence. 10% of continent subjects reported negative responses on quality of life scores which was commonly due to bothersome nocturia.

Conclusions:

LUTS are common and persisting problems after stroke, but the 'bother' of LUTS varies. UI after stroke is a common problem that negatively affects quality of life and is a predictor of poorer outcome. This study highlights the importance of addressing continence issues in multidisciplinary care after stroke.

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Funding acknowledgment: This study was funded by the National Continence Management Strategy Innovative Grants as part of the "Staying at Home" package of the Federal Government of Australia.