

CATHETERMANAGEMENT: AN OBSERVATIONAL STUDY OF URO-TAINER® SUBY-G IN MS

Hypothesis / aims of study

Patients with Multiple Sclerosis often suffer with both storage and voiding lower urinary tract symptoms (LUTS). In case of persistent detrusor sphincter dyssynergia with important retention and untreatable detrusor over activity, a supra-pubic indwelling catheter (SPC) can be a treatment option. There are guidelines available regarding the management of SPC. However, we do not have any specific data regarding the impact of the management of blocked catheters on the life of a catheter.

The aim of this study is to compare the result of standard catheter management with saline versus Uro-Tainer® Suby-G irrigation in patients with MS in a real-time clinical setting.

Study design, materials and methods

This is an observational study of a cohort of 6 MS patients hospitalised in one country over a six months period. Appropriate ethical approval was obtained. Informed consent was given by the patients. All 6 patients had an supra-pubic indwelling catheter for at least 2 years.

All patients had an Extended Disability Status Scale (EDSS) of 8 or more, this means that patients were wheelchair bound during the day.

In the first phase of the study we looked at their current catheter management; how often the SPC was changed and which irrigations were performed, how often and how they were performed.

In the second phase of the study we performed a catheter rinsing with Uro-Tainer® Suby-G, a solution of Citric monohydrate acid. We looked for the catheter change frequency and the frequency of irrigations.

Results

First phase:

Irrigations: all 6 patients were using Saline irrigations, performed by nurses according to the local procedure: 'inject 50 ml of Saline with a syringe with dosed power in the bladder and pull-out the rinsing liquid immediately, realizing 'turbulence', so that encrustations and debris would be removed. The procedure is repeated several times.

Frequency of irrigations with Saline:

- 2 rinses/week: 2 patients
- 3 rinses/week: 1 patient
- 1 rinse/day 2 patients
- 3 rinses/day 1 patient

In total 42 rinses were performed to 6 patients in 1 week

Schema of catheter change:

- Weekly: 1 patient
- Every 2 weeks: 5 patients

In total: 28 catheter changes were performed in an 8 week period

Before starting with the Suby-G irrigations, the last planned irrigation with Saline was not performed. So after 2 to 3 days, all catheters were completely blocked and needed to be changed. The blocked catheter was removed and cut open to objectify the encrustation.

Second phase:

Starting-up irrigations with Uro-Tainer® Suby-G: a new procedure of rinsing was introduced: the bag of Suby-G was connected to the SPC allowing approximately 30 ml of Suby-G flow into the bladder. Then the catheter was clamped so the product can react. After 5 minutes another 30 ml of Suby-G was injected in the bladder for 5 minutes. Afterwards, the solution was drained into the urine bag.

Frequency of irrigations with Suby-G:

- 2 rinses/week: 2 patients
- 3 rinses/week: 4 patients

In total: 18 rinses were performed to 6 patients in 1 week

This procedure was performed as long as the catheter would survive. By way of precaution and not due to blockage, the SPC was changed after :

- 4 weeks -> 2 patients
- 5 weeks -> 2 patients
- 6 weeks -> 1 patient
- 8 weeks -> 1 patient

In total: 10 catheter changes were performed in an 8 week period.

The catheter was removed and cut open to objectify the encrustation.

Interpretation of results

All 6 patients have advanced MS. Advanced MS patients are often treated with supra-pubic indwelling catheters. The impact of the management of blocked catheters on the life of a catheter is poorly documented so far.

During the test, there was no change in food nor liquid intake. No significant change in medication was performed and the mobility of the patients didn't changed neither (patients were in the wheelchair/bed same hours during the day as before the test).

The catheter change pattern changed from 1 to 2 weeks to 4 to 8 weeks.

In total, instead of 28 catheter changes, only 10 were performed in an 8 week period.

And 42 catheter rinses in 1 week dropped to only 18.

After the test, the cathetermanagement changed in all patients from Saline to Suby-G.

Concluding message

This is the first part of this observational study to look at the impact of the management on blocked catheters. But, how do we have to define which patients should have Suby-G cathetermanagement? Is checking the pH of the urine a good parameter?

This study needs to be continued and enlarged to have a more reliable view on this management strategy so that we can establish a founded protocol to advice our patients.

Cathetermanagement and giving advice to patients on catheter use, can be considered as specific nursing issues and which really can contribute to a better quality of life of our patients.

Conflict of interest: This study was supported by B.Braun Belgium.

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<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	Yes
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<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes