Clean Intermittent Catheterization in a population of Multiple Sclerosis Patients Abstract 459

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Hypothesis / aims of study

Clean Intermittent Catheterization (CIC) is considered as gold standard for treating bladder emptying disorders in adult neurogenic lower urinary tract dysfunction (ANLUTD).

The literature is rich about CIC and patients with spinal cord injury, but very poor concerning CIC and Multiple Sclerosis (MS) patients.

The aim of this study is to make an analysis of our experience with the use of CIC among an exclusive population of MS patients.

Study design, materials and methods

Retrospective multicentric observational Study: 01/01/2000 to 28/03/2024. Our data base was updated after each visit throughout the follow-up period.

Inclusion criteria: adult MS patients who were proposed to learn CIC, associated or not to a treatment of detrusor overactivity (DO)

Exclusion criteria: non MS patients

Assessed characterictics before CIC:

- gender,
- type of MS,
- duration of MS and duration of LUTS

Characteristics at the moment of learning CIC	Characterisctics at last follow-up visit (FUV)
Age	Age
EDSS-score	EDSS-score
Continence	Continence
Use of Anticholinergics	Use of Anticholinergics
Use of Botulinum Toxin	Use of Botulinum Toxin

- CIC method and frequency at last FUV
- Date of stopping with CIC for those who stopped before last FUV.

Our data base was updated after each visit throughout the follow-up period : 9.0 years (4.0 - 14.0)

Results and interpretation

Results

CIC proposed to 217 patients:

- 9 patients refused to learn it,
- 13 accepted to learn it but immediately stopped:
  - -10 for psychological reason
  - -3 for pain
- 195 patients went further with CIC and were enrolled in this study:

- 141 female patients (72.3%),
- type of MS: RR 44.2%, progressive secondary 44.2% and progressiv primary 11.6%
- MS duration before CIC, more than 5 years, n=164 (85.9%)

Results and interpretation

Results

type of voiding:	N (%)
CISC alone	95 (49.5%)
CSIC associated with spontaneous voiding	47 (24.5%)
CIC alone	24 (12.5%)
CIC associated with spontaneous voiding	26 (13.5%)

Frequency of CIC: 4.0 / day (2.0– 5.0)

Characteristics at the moment of learning CIC	Characterisctics at last follow-up visit (FUV)
Age 49.1 +11.1	Age 59.1 +10.6
EDSS-score 5.5 (4.0-6.5)	EDSS-score 6.5 (5.0-7.0)
Continence 25.8%	Continence 68.4% (p<0.01)
Use of Anticholinergics 73%	Use of Anticholinergics 31%
Use of Botulinum Toxin 42.5%	Use of Botulinum Toxin 38.7%

Incontinence rate differs by sex only at last FUV: proportionally more female patients (36.2) incontinent while 19.2% of male patients (p=0.024)

At last follow-up visit:

MS patients still performed CIC: n=127 (65.1%)

MS patients had stopped CIC before: n=68 (34.9%)

Progression MS :

-beginning of the study: n=16 (8.6%) of MS patients with EDSS > 7

-last FUV: n=47 (24.6%) of MS patients with EDSS > 7

Death during follow-up: n=32 (16.4%)

Interpretation of results

127 of the 195 MS patients (65.1%) were still performing CIC at last follow-up visit, probably thanks to the improvement of continence, although EDSS-score slightly worsened between the first and last visits with an increment of 1(p<0.0001 ?)

Not any significant difference in the other assessed parameters :

-Between the different subgroups of MS patients,

-Between the female and male patients

Conclusions

CIC is considered as the gold standard for treating bladder emptying disorders in adult neurogenic lower urinary tract dysfunction (ANLUTD).

There is less literature concerning the use of CIC in MS population.

Our current study showed an encouraging compliance at CIC in MS population and a contribution to urinary continence.

References

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