

## CONTRIBUTION OF BEHAVIORAL AND COGNITIVE THERAPY TO MANAGING FUNCTIONAL URINARY DISORDERS IN WOMAN.

### Hypothesis / aims of study

Some lower urinary tract dysfunctions remain unexplained after a urodynamic testing. Functional etiology is then considered. A comprehensive care combining muscular training and behavioral and cognitive therapy (BCT) [1-2] can be proposed before a more invasive investigation.

In our practice, this approach is mainly applied to patients who complain of urgency frequency with leakages.

### Study design, materials and methods

We present our experience in women complaining of that syndrome with variable degrees of severity.

Initially 10 sessions (45 min duration) of treatment were offered to every patient. Sessions took place once a week except the last 2 sessions which were 2 or 3 weeks apart. If necessary, additional booster sessions were also allowed.

The goal of the treatment was to manage urgency. Therefore, an appropriate treatment program including urgency-coping strategies was offered.

General principles were information, highlighting of inappropriate behavior, re-learning (increase of the delay between voiding and of the number of voiding at normal desire), re-formulation, activity exposure and problem solving.

Used tools during session were relaxation, muscular training (feeling, steadiness, duration) of perineum, and abdominal breathing. Learned techniques were simulated at home (training), then applied in urgency condition (activity exposure). Each patient fulfilled daily voiding diary; a planning of drinks was established jointly with the physiotherapist.

Evaluation was performed initially and during the last session using the discomfort visual analog scale (VAS) and the French score MHU [3] (measurement of urinary disability) obtained from questioning (items are urgency, frequency, dysuria, stress incontinence).

All sessions were conducted by the same physiotherapist.

### Results

Results were described in the table for 3 women. The number of proposed sessions (10) could be reduced (7: case #3) or greatly increased (20: case #1) depending on the response to treatment.

In these 3 cases improvement was observed:

- in urinary functional symptoms: increased daytime voiding interval (case #2: from 0.5 hour to 2.5 hours), decreased daytime leakages (case #3: from 7-8 per week to 3-4 per month) and recurrence of voiding at normal desire (from 30% in case #1 to 50% in case #3) (Table),

- in quantization scores: comparing the less improved case (#1) and the more improved (#2) the range of improvement was [25% to 44%] in VAS and [36% to 71%] in MHU

### Interpretation of results

The aim of this study is to describe a non-usual method of treatment of functional urinary disorders. This diagnosis is rarely made in primary care office and in most cases after urological examination and urodynamics.

The first question we can ask ourselves is how many sessions are needed to obtain significant results. If in a first approach 10 sessions are proposed, the number of sessions does not only depend of improvement but also of socio-professional constraints. An alternative is proposed: reproducing the spacing and training sessions at home. The observed high number of sessions required for case #1 results from the severity of incontinence and the low ability of the patient to assimilate instructions.

The usual frequency is chosen to give the woman time to incorporate new habits and verify their sustainable acquisition.

Other parameters essential for significant results are attendance and regularity of training, and acceptance of coping strategies. Therefore, one can reproach this method for being time-consuming.

Recall that educational aspect (habits related to urinary sphere: drinking, feeding, precautionary voiding, removal of avoidance behavior) is used to make the patient more active and self-dependent.

The limitation of this study is the lack of evaluation of the results at middle- and long-term.

### Concluding message

Comprehensive care combining muscular training and behavioral and cognitive therapy applied to patients with functional urinary dysfunction leads to significant improvement without invasiveness. Good results are conditioned by targeted medical indication and investment of the patient between sessions. That method appears as a good alternative before considering invasive investigations and /or heavy medical treatment (sacral nerve stimulation, botulinum toxin...)

Table 1: Description of the management of 3 women with different degree of functional urinary disorders

	Case #1 (66 y) 20 sessions		Case #2 (62 y) 9 sessions		Case #3 (43 y) 7 sessions	
	initial	end	initial	end	initial	end
Daytime frequency	11	7	10	7	11	7
Night time frequency	5	3	3	2	1	0
Daytime voiding interval	0.5 h	1 h	0.5 h	2.5 h	0.5h	2h
Voiding delay after strong desire	<1min	5min→15min	5min	60min	5min→10min	15min→60min
Daytime leakages	7-30/w ++/+++	5-10/w +/+++	1-2/w +/++	1/ 2 w +	7-8/w ++/+++	3-4/m +/++
Night time leakage	35/w ++/+++	14/w +/++	0	0	0	0
% of voidings at normal desire	0	30	0	33	0	50
VAS/10	6.8	5.1	4.5	2.5	8	5.1
MHU/28	11	7	7	2	7	3

#### References

1. Cottraux J.1998. Les thérapies comportementales et cognitives. Masson éd, Paris
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3. Amarenco G, Kerdraon J, Perrigot M. 1992 Echelle d'évaluation du handicap pelvien: mesure du handicap urinaire (MHU) in Rééducation vésico-sphinctérienne et ano-rectale. Péliissier J, Costa P, Lopez S, Mares P, Masson éd. pp 498-504

#### Disclosures

**Funding:** none **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** It involved retrospective analysis of rehabilitation studies from a database. **Helsinki:** Yes **Informed Consent:** Yes