

THE VALUE OF COMBINING LOW DOSE TROSPIUM CHLORIDE WITH TRANSCUTANEOUS POSTERIOR TIBIAL NERVE STIMULATION IN THE TREATMENT OF OVERACTIVE BLADDER IN FEMALES

Abulseoud A¹, Moussa A¹, Ibrahim I², Saba E², Hassouna M¹, Ali G¹

¹Department of Genitourinary Surgery, Faculty of Medicine, Alexandria University Egypt,

²Department of Physical Medicine, Rheumatology and Rehabilitation, Faculty of Medicine, Alexandria University Egypt.

Introduction

- About 70% of OAB patients discontinue treatment in the first year after starting anticholinergic drugs mainly due to side effects.
- TPTNS is a non-invasive procedure that can be easily self-administered at home.
- TPTNS alone has lower success rate than PTNS (48-68% Vs 60-80%). Combination of treatment can reproduce the effectiveness of PTNS while minimizing its constraints (minor bleeding, mild pain, or skin inflammation at the treatment site and its risk of infection).
- Studies have demonstrated the potential efficacy of combination of treatments, which led to the aim of this study.

Hypothesis/Aim of the study

- Evaluation of TPTNS as 1st line (after failure of behavioural therapy) in treatment of idiopathic OAB in females.
- The value of adding low dose Trosipium Chloride (20mg).

Patients & Methods

Inclusion criteria

- Adult females who were suffering from idiopathic OAB documented by cystometry.

Exclusion criteria

- Previous medical treatment of OAB.
- UTI or BOO.
- Neurological diseases.
- Gynecological problems as genital infection, pelvic organ prolapse or genital tumors.
- Electronic implants such as heart pacemakers.
- Pregnancy.
- Seizures.

Outline of treatment

30 adult female patients presented with OAB (Failed 1st line treatment) were randomly divided into 2 groups:

Group	Patients	Mean age	Treatment
Group I	15 Patients	48.73 ± 16.42	TPTNS
Group II	15 Patients	48.13 ± 10.80	TPTNS + 20 mg Trosipium Chloride once daily

Pre-treatment & post-treatment evaluation

- 3 days voiding diary.
- OABSS Questionnaire.
- IIQ-7 Questionnaire.
- Cystometry to document detrusor overactivity.

Protocol

- 24 stimulation sessions (30 min. duration each). (Bipolar stimulation, Pulse Frequency 10 Hz and 250us).
- 3 sessions per week for 8 weeks.

Results

Comparison between the two studied groups according to different parameters

		Group I (n=15)	Group II (n=15)	Test of sig.	P
OABSS	Pre-treatment				
	Mean ± SD.	12.67±1.95	13.0±1.31	t=0.549	0.587
	Post-treatment				
	Mean ± SD.	10.0±2.0	8.53±1.30	t=2.380	0.024
	†P ₁	0.001	0.001		
IIQ-7	Pre-treatment				
	Mean ± SD.	64.33±8.57	63.38±8.81	t=0.298	0.768
	Post-treatment				
	Mean ± SD.	51.86±17.26	31.99±9.26	t=3.930	0.001
	†P ₁	0.002	0.001		
Frequency	Pre-treatment				
	Mean ± SD.	13.13±1.64	12.87±1.85	t=0.418	0.679
	Post-treatment				
	Mean ± SD.	10.60±2.32	8.60±0.83	t=3.140	0.006
	†P ₁	0.003	0.001		
Mean voided volume (ml)	Pre-treatment				
	Mean ± SD.	110.40±14.92	106.15±13.12	Z=0.706	0.480
	Post-treatment				
	Mean ± SD.	138.0±37.79	178.6±25.91	Z=2.782	0.005
	ZP ₁	0.011	0.001		
Volume at 1 st sensation (ml)	Pre-treatment	n=15	n=15		
	Mean ± SD.	136.87±40.04	144.87±39.86	t=0.548	0.588
	Post-treatment	n=15	n=14		
	Mean ± SD.	140.47±38.11	206.07±66.37	t=3.320	0.003
	†P ₁	0.838	0.001		
Capacity (ml)	Pre-treatment	n=15	n=15		
	Mean ± SD.	250.13±56.24	263.40±50.45	Z=0.955	0.339
	Post-treatment	n=15	n=14*		
	Mean ± SD.	296.40±99.0	377.80±112.92	Z=2.117	0.034
	ZP ₁	0.026	0.001		

Z for Mann Whitney test.

p= p value between group I&II before and after treatment.

†P₁=p value between pre- and post-treatment in the same group.

ZP₁= p value for Mann Whitney test for comparing between group I&II before and after treatment.

†P₁= p value for student t-test for comparing between group I&II before and after treatment.

*One patient refused to do urodynamics at the end of the study.

Categories of OABSS before and after treatment

	Group I		Group II	
	Severe	Moderate	Severe	Moderate
Pre-treatment	12 (80.0%)	3 (20.0%)	14 (93.3%)	1 (6.7%)
Post-treatment	4 (26.6%)	11 (73.3%)	0 (00.0%)	15 (100%)
McNp	0.008		0.001	

Mild= score < 5 out of 15. Moderate= score from 6 to 11. Severe= score >12.

McNp= P value for McNemar test.

Categories of the IIQ-7 before and after treatment in both groups

	Group I			Group II		
	Good	Moderate	Poor	Good	Moderate	Poor
Pre-treatment	0 (0%)	11 (73.3%)	4 (26.7%)	0 (0%)	11 (73.3%)	4 (26.7%)
Post-treatment	6 (40.0%)	7 (46.7%)	2 (13.3%)	14 (93.3%)	1 (6.7%)	0 (0%)
MHp	0.005			0.001		

< 50= good QoL. 50-70= Moderate QoL. > 70 = Poor QoL.

MHp= p value for Marginal homogeneity test.

Conclusions

- Multimodal treatment has significantly higher results than TPTNS alone.
- TPTNS + Low dose Trosipium Chloride is safe, Non-Invasive with acceptable results to be used as a second line treatment in OAB.
- Low dose Trosipium Chloride has led to improving the compliance of patients to treatment.

Disclosure: None