

#77. THUMBS UP FOR BIG TOE DOWN! INVESTIGATING THE RELATION BETWEEN MOTOR RESPONSE TO PTNS AND SUCCESSFUL OUTCOMES IN PATIENTS WITH DU

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INTRODUCTION & AIM OF THE STUDY

Detrusor Underactivity (DU) is a diagnosis based on UDS, generally associated with relevant symptoms and signs, manifest by low detrusor pressure or short detrusor contractions in combination with a low urine flow rate resulting in prolonged bladder emptying and/or failure to achieve complete bladder emptying within a normal time span; a high PVR may be present¹.

Treatment of DU is challenging:



Aims of this study were:

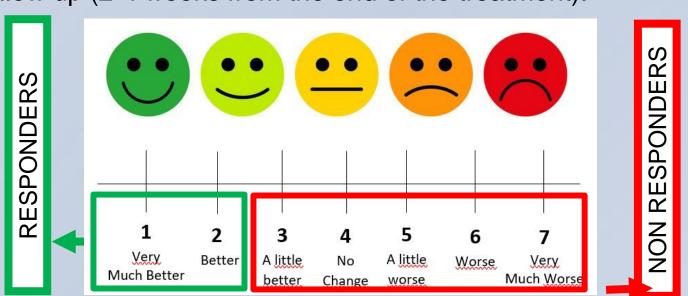
- Evaluate the effect of PTNS in patients affected by non neurogenic DU
- Identify possible predictors of success

PATIENTS & METHODS

Patients enrolled were non-neurologic and non-diabetic and had a UDS in our center to confirm DU.

Data from IPSS/QoL questionnaire, bladder diaries and Uroflowmetry with RPM were collected before and after a complete PTNS cycle (12 sessions, 30 min.)

A simple PGI-I scale was used to assess patients' satisfaction at Follow up (2-4 weeks from the end of the treatment).



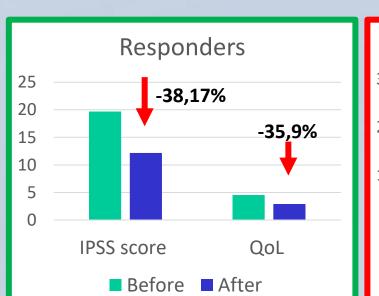
Data regarding age, sex, IPSS/QoL scores, bladder diaries, Uroflowmetry were collected and compared between the two groups; data regarding specifics of PTNS (intensity of stimulation, flexion of the big toe) were also compared, and statistics (Fisher test) were done.

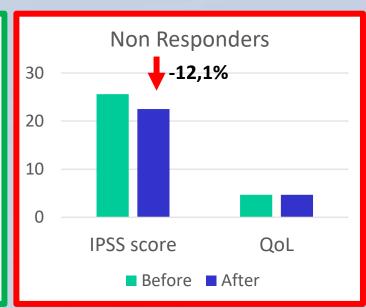
RESULTS

Basing on PGI-I, 11/19 (64,7%) patients reported improvement from the treatment.

Table 1	Responders (n=11)	Non Responders (n=6)	pValue
Males	M 7	M 4	
Females	F 4	F 2	
IPSS score before			
treatment, mean	19.7±7.68 (35-7)	25.6±4.41 (29-20)	>0,05
(range)	,	,	,
IPSS score after			
treatment, mean	12.18±5.62 (20-4)	22.5±3.51 (29-20)	>0,05
(range)			
QoL score before			
treatment, mean	4.54±1.86 (6-1)	4.66±1.21 (6-3)	>0,05
(range) QoL score after			
treatment, mean	0.04 4.05 (5.4)	1.66 1.01 6.0	0.05
(range)	2.91±1.86 (6-1)	4.66±1.21 (6-3)	>0,05
Intensity of			
stimulation, mean	7.72±2.73 (mA)	10.83±1.47 (mA)	>0,05
(range)	(12-5)	(12-8)	7 0,00
Flexion of Big Toe	10/11	1/6	0,005
(%)	(90,9)	(16,6)	0,000

Figure 1 shows the improvement in terms of IPSS/QoL:





Changes in Uroflowmetry, bladder diaries and rate of clean intermittent catherisation were present but not significant.

The only predictor of subjective success of PTNS was the dorsal flexion of the big toe.



CONCLUSIONS

According to our data, PTNS can be beneficial in >60% of patients affected with DU, even though objective improvements in terms of Uroflowmetry variables (Qmax, Vvoid, PVR), bladder diaries, and rate of CIC were found not significant.

Dorsal flexion of the big toe during nerve stimulation was found to be the only predictive factor of treatment success in terms of patients' satisfaction/subjective benefit.

This highlights the importance of provoking the big toe's flexion during the stimulation, suggesting that needle re-positioning might be needed whenever the flexion does not happen. Further studies are needed to confirm this finding and to further validate the use of PTNS in patients with DU.

REFERENCES

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