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## **Abstract**

Therapy resistant functional urological disorders were seen in an integrated outpatient clinic by a urologist and psychiatrist and there was a significant reduction in HADS depression score. In addition the global assessment of functioning shows an improvement in functioning. Furthermore, at follow up only a slight impairment in social, occupational or school functioning (e.g., temporarily failing behind in schoolwork) had remained, indicating that earlier treatment refractoriness was redressed. Functional urological patients, previously refractory to urological treatment, benefit from an integrated care

## Introduction

approach by urologists and psychiatrists.

Functional urological disorders, such as overactive bladder syndrome (OAB), urological pain syndromes: bladder pain syndrome/interstitial cystitis (BPS/IC)) and chronic pelvic pain syndrome (CPPS) are highly prevalent. They are frequently interrelated and characterized by a chronic course and considerable treatment resistance.

Functional urological disorders are strongly associated with affective symptoms and have a negative impact on quality of life (1), functional urological disorders are strongly associated with affective symptoms and have a negative impact on quality of life.

## **Methods and Materials**

It is a retrospective observational cohort study of functional urological disorders in combination with psychosomatic co-morbidity.

All patients were seen by a urologist and a psychiatrist. All patients received psycho-education about the bladder-brain axis and the alarm falsification model (2). Successive treatment regimens consisted of prescribing serotonin reuptake inhibitors (SSRIs) (e.g., sertraline, escitalopram) in affective conditions or serotonin noradrenalin reuptake inhibitors (SNRIs) (e.g., duloxetine) in affective conditions with chronic pain, augmented with atypical antipsychotics (e.g., quetiapine) and/or psychotherapy (cognitive behavioral therapy (CGT), acceptance and commitment therapy (ACT), etc.) if indicated.

Table 1. Demographic characters.

	Total		Urgency-fr syndro		Urological pain syndromes	
Number of patients/diagnoses (N)	N (%)	Missing data (N)	N (%)	Missing data (N)	N (%)	Missing data (N)
Primary complaint	77 (100)		29 (37.7)		48 (62.3)	
Age (median)	54		52		57	
Gender (M/F)	31/46		10/19		21/27	
Frequency	47 (61)		17 (58.6)		30 (62.5)	
Urgency	50 (64.9)		22 (75.9)		27 (56.3)	
Incontinence	29 (37.7)		16 (55.1)		12 (25)	
Pain during filling phase of the bladder	39 (50.6)		11 (37.9)		28 (58.3)	
Pelvic pain	57 (74)		17 (58.6)		40 (83.3)	
Globus sensation (throat)	10 (17.9)	21	4 (13.8)	8	6 (12.5)	13
Epigastric complaints	20 (35.5)	19	5 (17.2)	7	15 (31.3)	12
Palpitations	15 (25.8)	19	6 (20.7)	9	8 (16.7)	9
Chest pain	14 (24)	19	5 (17.2)	9	9 (18.8)	10
Dizziness complaints	16 (27.5)	19	6 (20.7)	7	10 (20.8)	12
Fibromyalgia	14 (19.2)	4	8 (27.6)	2	6 (12.5)	2
Irritable bowel syndrome	24 (32)	2	8 (27.6)	1	16 (33.3)	1
Psychological trauma in the past*	24 (32)	2	8 (27.6)	1	16 (33.3)	1
Anxiety disorder	13 (16.9)		6 (20.7)		6 (12.5)	
Panic disorder	14 (18.2)		7 (24.1)		7 (14.6)	
Depression disorder	20 (26)		6 (20.7)		14 (29.2)	
Total psychiatric diagnoses pre-treatment**	47		19		27	
Psychiatric diagnosis during consultation**	47		17		30	
No psychiatric comorbidity	8 (10.4)		2 (6.9)		6 (12.5)	

## Results

A total of 77 patients are included, with urological pain syndrome (48%) and OAB (37.7 %).

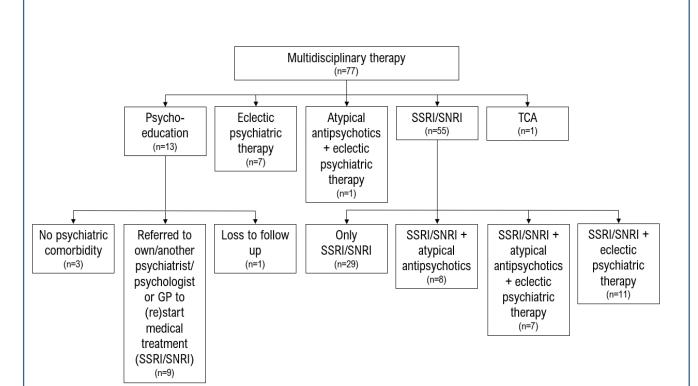


Figure 1. The multidisciplinary treatment approach.

		T0*			T1*		p-value*
HADS-A	UFS PS Total	6 [4.5,11.5] 7 [4.75,10.25] 7 [5,11]	(n	=21) =26) =47)	8.5 [4, 10.25] 6 [5,9] 6 [5,9]	(n=18) (n=37) (n=55)	0.554 0.081 0.219
HADS-D	UFS PS Total	5 [2.5, 9] 8.5 [5.75,11] 7 [4,11]	(n	=21) =26) =47)	4.5 [1.75,6.5] 6 [2,10] 5 [2,9]	(n=21) (n=37) (n=55)	0.046 0.006 0.001
GAF scale	UFS PS Total	61 [51,61] 51 [51,61] 51 [51,61]	(n	=29) =48) =77)	80 [65.5, 90] 75 [70,90] 80 [70,90]	(n=29) (n=48) (n=77)	0.001 0.001 0.001
PGI-I	UFS PS Total				3 [2,4] 3 [1.25,4] 3 [2,4]	(n=23) (n=44) (n=67)	
Degree of change	UFS PS Total				6 [5,7] 7 [5,8] 7 [5,8]	(n=23) (n=44) (n=67)	
Quality of life	UFS PS Total				7 [6,8] 7 [6,8] 7 [6,8]	(n=17) (n=36) (n=53)	
OAB-q: symptom bo HRQoL Total	ther				19 [13.25, 36.75] 54.5 [39.5, 75] 73 [54.75, 93.75]	(n=16)	
ICSI ICPI					10 [6,13.5] 10 [3,13] Total 18 [9,27]	(n=25)	
NIH-CPSI					15 [8.25, 19.25]	(n=16)	

**Table 2**. Results of multidisciplinary treatment.

# **Discussion**

This is a observational cohort study on integrated psycho-somatic treatment of functional urological disorders with psychosomatic comorbidity. The current study reveals a pre-post comparison before and after multidisciplinary treatment by urologist and psychiatrist. A significant reduction in HADS-Depression scores was observed, and the global assessment of functioning shows an improvement in functioning. Furthermore, at follow up only a slight impairment in social, occupational or school functioning (e.g., temporarily failing behind in schoolwork) had remained, indicating that earlier treatment refractoriness was redressed. In this selected refractory OAB, BPS and CPPS cohort including patients who are assumed to have psychiatric comorbidity, an association between pelvic pain and anxiety and more specifically with panic disorder has been recognized.

There are limitations to this study, the relatively small sample size and selection bias in a tertiary referral centre, nevertheless the outcomes are important and can lead to novel treatment approach in a multidisciplinary setting for patients with refractory symptoms.

# **Conclusions**

Functional urological patients, previously refractory to urological treatment, benefit from an integrated care approach by urologists and psychiatrists.

# References