

NEUROTICISM AND REPRESSOR PERSONALITY TYPE MAY HAVE INFLUENCE ON THERAPEUTIC EFFECT IN PATIENTS WITH INTERSTITIAL CYSTITIS / BLADDER PAIN SYNDROME (IC/BPS)

Hypothesis / aims of study

Interstitial Cystitis / Bladder Pain Syndrome (IC/BPS) is a chronic disease characterized by pelvic pain and lower urinary tract symptoms. Recent studies showed that IC/BPS may be associated with other comorbid diseases, such as mental health disorders. Psychological disorder including depression, anxiety, and mood catastrophizing that function outside of the bladder predict a significant impact on IC/BPS symptoms, especially on pain, hallmark symptom of IC/BPS. Other studies also found that repressors in erectile dysfunction (ED) patients tend to report their complaints in a manner that protects their self-worth as less distressed (depression, physical complaints). The purpose of this study is to examine whether the IC/BPS patients with repressive attitude personality were recovered poorly on bladder symptoms than non-repressors with IC/BPS.

Study design, materials and methods

This was a prospective study. Of 52 IC/BPS patients who were compatible with AUA/SUFU criteria including unpleasant sensation (pain, pressure, discomfort) perceived to be related to bladder with duration >6 weeks were included. All these patients completed measures of pain severity (Visual Analog Scale), bladder symptom severity (IC Symptom Index, IC Problem Index) and Pelvic Pain Scale, Urgency Scale (PUF scale). Cystoscopic hydrodistension was performed in all patients and different degrees of glomerulation were also observed. Hunner ulcer was excluded in this study. Maximal bladder capacity (MBC) during 2 minutes cystoscopic hydrodistension was also recorded.

In psychological intervention, the personality questionnaire was collected by the validity scales of Millon Clinical Multiaxial Inventory-III (MCMI-III) for distinguishing three personality types, as repressor, neuroticism and normal groups. Beck Depression invention (BDI) and Beck Anxiety invention (BAI) were also recorded for emotional status. After hydrodistension, all patients received intravesical hyaluronic acid instillation therapy within 12 weeks. Then we collected symptomatic data to assess symptom severity and improvement before (baseline) and after (post-treatment) spanning a period of 12 weeks. These data were analyzed using point bi-serial correlation for ANOVA and chi-square to evaluate symptoms and personality types in these three patient's groups. Significance was set at $p < 0.05$.

Results

According to personality questionnaire, we divided IC/BPS patients to three personality-type groups as repressor ($n=10$), neuroticism ($n=16$) and normal groups ($n=26$). In patient demographic among three groups, there were no differences in age and sex ($P>0.05$) among these three groups. In the baseline, repressor group declare the lowest emotional disturbance in depression and anxiety compared to neuroticism and normal groups ($P<0.01$) (Table 1). However, there is no statistical difference in baseline bladder symptoms in repressor group compared to normal group. The trend that repressor group showed mild severity of bladder symptoms compared to normal group in IC/BPS patients was noted. Moreover, neuroticism group showed more severe urgency compared to repressor group ($P=0.006$). After 12 weeks of intravesical hyaluronic acid instillation therapy, intra-individual approach analysis shows that only normal group have statistically significant differences between pre- and post-treatment in pain variables ($P< 0.01$). However, repressor and neuroticism group has no significant improvement of pain to treatment (Table 2).

Interpretation of results

Recent studies showed repressor group declare less physical and psychological distressed in ED patients. We also observed these trends in our IC/BPS patients. Surprisingly, repressor and neuroticism group showed poor response of pain domain to routine therapy.

Concluding message

Repressor and neuroticism group shows less improvement in bladder pain symptoms. It might imply that effect of treatment is affected by individual character, especially personality affect. Therefore, in addition to treating the disease, psychological intervention focus on different personality type should be provided to improve quality of life of IC/BPS patients.

<Table 1> Baseline data in psychological and bladder symptom among repressor, neuroticism, and normal group by using ANOVA

	Repressor (N=10)	Neuroticism (N=16)	Normal (N=26)	Statistics (P Value)	
				Repressor vs Normal	Repressor Vs Neuroticism
Age	44.63 ± 11.0	41.80 ± 11.7	37.50 ± 12.2	0.06	0.33
Psychological Symptom					
BDI	6.58 ± 6.1	33.43 ± 10.4	13.59 ± 7.0	0.008	<0.001
BAI	4.54 ± 5.3	23.13 ± 11.1	11.13 ± 10.6	0.04	<0.001
Bladder Symptom					
VAS-Pain	3.50 ± 2.6	5.88 ± 3.2	4.90 ± 3.1	0.18	0.09
VAS-Urgency	5.58 ± 2.0	8.25 ± 1.0	6.90 ± 2.2	0.06	0.006
ICSI	11.17 ± 2.9	12.00 ± 2.2	12.03 ± 2.4	0.32	0.47
ICPI	9.50 ± 2.3	10.25 ± 2.8	11.07 ± 2.9	0.11	0.56
PUF	16.75 ± 6.5	21.57 ± 4.6	19.38 ± 4.8	0.15	0.06
MBC during hydrodistension	586.6 ± 136.4	688.7 ± 136.4	630.3 ± 193.0	0.46	0.20

<Table 2> Difference of pain and urgency between pre and post treatment among repressor, neuroticism, and normal group by using paired T test and ANOVA

	Repressor (N=10)	Neuroticism (N=16)	Normal (N=26)	Statistics (P Value)	
				Repressor vs Normal	Repressor Vs Neuroticism
VAS-Pain					
Pre-treatment	3.50 ± 2.6	5.88 ± 3.2	4.90 ± 3.1		
Post-treatment	3.00 ± 1.8	3.88 ± 2.6	3.00 ± 2.5		
Δ treatment	-0.5 ± 1.9	-2.0 ± 2.7	-2.0 ± 3.3	0.26	0.39
Pair T test (P value)	0.18	0.07	0.006		
VAS-Urgency					
Pre-treatment	5.58 ± 2.0	8.25 ± 1.0	6.90 ± 2.2		
Post-treatment	3.27 ± 2.4	5.38 ± 1.9	4.56 ± 2.6		
Δ treatment	-2.1 ± 1.7	-2.8 ± 1.9	-2.3 ± 2.7	0.79	0.49
Pair T test (P value)	<0.001	0.004	<0.001		

Disclosures

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