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# THE PREVALENCE OF NON-BLADDER RELATED CONDITIONS IN PATIENTS WITH INTERSTITIAL CYSTITIS/PAINFUL BLADDER SYNDROME: THE IMPACT OF GENDER AND AGE

## Hypothesis / aims of study

Growing evidence suggests that a variety of non-bladder specific illnesses frequently coexist with interstitial cystitis/painful bladder syndrome (IC/PBS). Such co-morbid conditions may complicate the clinical presentation and the treatment of IC/PBS. In our previous study we found that these co-morbid conditions correlate with the severity of IC/PBS symptoms. The aim of the study was to further investigate the influences of age and gender on the prevalence of non-bladder related conditions in patients with IC/PBS.

# Study design, materials and methods

A total of 111 patients with IC/PBS, all of whom met National Institute of Arthritis, Diabetes, Digestive and Kidney Diseases (NIDDK) criteria, completed the screening questionnaires for chronic fatigue syndrome (CFS), irritable bowel syndrome (IBS), fibromyalgia (FM), temporomandibular disorders (TMD), multiple chemical sensitivities (MCS), headache, and localized myofascial pain disorder (LMP). Pearson's chi-square test and t test were used to test the influences of sex and age respectively. P value less than 0.05 was of statistical significance.

88 (79.3%) patients met diagnostic criteria for at least one co-morbid conditions. 10 (11.4%) were males with mean  $\pm$  SD age of 47.5±21.8 years, while 78 (88.4%) were females with mean±SD age of 48.4±14.1 years. Female patients with IC/PBS tends to have more co-morbid conditions than male patients (p=0.005). Female patients with IC/PBS were prone to CFS, MCS, headache, and LMP, but only headache (p = 0.019) and LMP (p <0.001) reached statistical significance. A trend towards IBS, TMD, and FM was also found in male patients with IC/PBS, but it was not statistically significant. IC/PBS patients with nonbladder related condition, except LMP, tended to be younger than those without, but only IBS reached statistical significance  $(44.3\pm15.5 \text{ versus } 51.6\pm13.6 \text{ years}, p = 0.013).$ 

### Interpretation of results

Female patients with IC/PBS are more likely to have non-bladder related conditions, especially headache and LMP. Younger IC/PBS patients were more prone to have IBS.

### Concluding message

The occurrence of non-bladder related conditions in patients with IC/PBS is affected by gender and age.

	Chronic Fatigue Syndrome			Irritable bowel syndrome		
	Without	With	p value	Without	With	p value
Age	50.2±14.6	47.7±14.8	0.365	51.6±13.6	44.28±15.5	0.013
Sex (female ratio)	43 (81.1%)	55 (90.2%)	0.187	60 (84.5%)	38 (88.4%)	0.596
	Temporomandibular disorder			Multiple chemical sensitivities		
	Without	With	p value	Without	With	p value
Age	48.8±14.8	48.8±12.8	0.993	49.0±14.7	47.9±15.1	0.803
Sex (female ratio)	89 (89.9%)	10 (90.9%)	1	86 (85.1%)	13 (92.9%)	0.688
	Headache			Localized myofascial pain		
	Without	With	p value	Without	With	p value
Age	49.8±14.9	46.6±14.0	0.266	47.5±14.8	51.3±14.4	0.17
Sex (female ratio)	61 (80.3%)	37 (97.4%)	0.019	56 (77.8%)	46 (100%)	0.0001

	Fibromyalgia				
	Without	With	p value		
Age	49.2±14.6	46.6±15.1	0.628		
Sex (female ratio)	93 (85.3%)	10 (100%)	0.354		

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