

ABSTRACT

Fibromyalgia, Painful Bladder Syndrome, Irritable Bowel Syndrome and Chronic Fatigue Syndrome, all represent the main part of an entity called "Central Sensitivity Syndromes". It has been shown that those conditions share some pathophysiologic findings related to nociceptive processing (1), however, it is still not clear if one condition triggers the other to develop or if those conditions arise independently according to a common physio-pathologic scheme.

Little is known about the shared prevalence between those conditions. It has been shown that Irritable bowel syndrome, Fibromyalgia and Chronic Fatigue Syndrome are more prevalent in patients with Interstitial Cystitis/Painful Bladder Syndrome than in asymptomatic subjects (2).

Previous studies have indicated that women with Fibromyalgia when compared to women without Fibromyalgia, have a higher incidence of lower urinary tract symptoms including urinary frequency, urinary urgency, nocturia, and pelvic pain, all in the absence of infection (3).

Knowing the exact epidemiological relationship between these conditions could be of great help in understanding the pathophysiological link between these different pain syndromes.

METHODS

Data was collected by the administration of a questionnaire to record demographic data and treatment status along with the O'leary Sant questionnaire. The questionnaires were administered to female patients, above 18 years of age, diagnosed with Fibromyalgia according to ACR 2010 (American College of Rheumatology) criteria, presenting to the Rheumatology clinic after taking their consent.

Controls recruited were healthy female volunteers, above 18 years of age, working at/or visiting our medical center and were recruited on a voluntary basis. Pregnant females were excluded from the study.

The demographic information collected included age, parity, mode of delivery, previous medical co-morbidities and surgeries, history of depression, smoking, educational level, BMI, ethnicity, menopausal status, hormone replacement therapy, sexual activity and sexual abuse and current and past treatments for Fibromyalgia.

		Controls N (%)	Fibromyalgia N (%)	P-value
SMOKER	NO	58 (78.4)*	28 (54.9)*	0.005
	YES	16 (21.6)*	23 (45.1)*	
MENOPAUSE	NO	68 (91.9)*	16 (31.4)*	<0.001
	YES	6 (8.1)*	35 (68.6)*	
PARITY	Nullipara	47 (63.5)*	14 (27.5)*	<0.001
	Primipara	8 (10.8)	2 (3.9)	
	Multipara	19 (25.7)*	35 (68.6)*	

	Controls Mean ± SD N=74	Fibromyalgia Mean ± SD N=51	P-Value
AGE (years)	32.8 ± 11.67	51.64 ± 12.82	0.438
Body Mass Index (kg/m ²)	23.53 ± 4.44	27.43 ± 6.59	0.007
O'Leary Sant voiding and pain indices	4 ± 6	22 ± 9	<0.001

*p=independent t-test comparing controls to Fibromyalgia

RESULTS

Between May 2018 and March 2019, 51 patients with Fibromyalgia and 74 healthy controls were recruited in the study. Body mass index among Fibromyalgia patients (27.43 ± 6.59) was significantly higher than that of the control population (23.53 ± 4.44) (p < 0.007).

45.1% of Fibromyalgia subjects were smokers as compared to 21.6% of the controls (p = 0.005) and 68.6% of Fibromyalgia subjects were menopausal compared to only 8.1% of controls (p < 0.0001).

A higher percentage of nulliparous individuals was found within the control population and it was statistically significant (p < 0.0001). On the other hand, a higher percentage of multiparous individuals was found within the Fibromyalgia patient population and it was also statistically significant (p < 0.0001).

The average of "years since diagnosis" among Fibromyalgia patients was 4.31(±3.1) years.

O'Leary Sant voiding and pain indices were significantly higher in Fibromyalgia patients 22 (±9) when compared to the control population 4 (±6) (p < 0.0001).

There was no statistical significance in the correlation between the duration since Fibromyalgia diagnosis and O'Leary Sant voiding and pain indices (p = 0.665).

CONCLUSIONS

Interstitial Cystitis/Painful Bladder Syndrome is frequently encountered in patients with Fibromyalgia. Patients diagnosed with Fibromyalgia should be queried about the presence of bladder symptoms, as there are specific therapies and interventions that target this entity of bladder dysfunction, independent from the treatment of Fibromyalgia.

REFERENCES

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