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CENTRAL SENSITIZATION IN THE BLADDER PAIN SYNDROME

Hypothesis / aims of study

Bladder Pain Syndrome (BPS) is defined as an unpleasant sensation (pain, pressure, discomfort) perceived to be related to the urinary bladder, associated with lower urinary tract symptoms of more than six weeks duration in the absence of infection or other identifiable causes. Central sensitization (CS), nociceptive hyper-excitability known to amplify and maintain clinical pain, has been identified as a leading culprit responsible for maintaining pain in several chronic pain conditions, among which BPS.
Aim of this study : is to evaluate in patients affected by BPS the correlation between CS and years of the pain, number of other CS–related diseases, number of tried treatments and number of diagnostic investigations.

Study design, materials and methods

Fifty-eight consecutively BPS outpatients were recruited from 2014 to 2016 (4 men and 54 women). They was submitted to Central Sensitization Inventory (CSI), a clinical interview, Overactive Bladder Questionnaire (OAB-8v). We used a descriptive analysis (mean, standard deviation, range) and Spearman and Kendall test coefficient for correlation index. P-value less than 0.05 was required for statistical significance.

Results

The 58 patients were observed at 46.3 + 14.0 years, after 13.1 + 11.0 years by the onset of symptoms. They had the onset of symptoms at 33.1 + 15.6. The age at diagnosis was 40.7 + 13.3, after 10.5 + 10.5 years of the onset of symptoms. The CSI was 69.7 + 15.8. The correlation between SCI and the years of disease was significant ($r= 0.84$ by the Spearman test, $p<0.05$; $r=0.66$ by the Kendall test, $p<0.05$). The number of the other diseases associated to central sensitization was 2.8 + 1.9. The correlation between the number of diseases associated to central sensitization and the years of disease was significant ($r=0.65$ by the Spearman test, $p<0.05$; $r=0.47$ by the Kendall test, $p<0.05$). The other pathologies was fibromyalgia (70%), irritable bowel syndrome (70%), anxiety or depression (70%), migraine (60%), neck injury or whiplash (40%), Panic Disorder Attack (30%), chronic fatigue syndrome (20%), temporomandibular joint syndrome (20%), restless leg syndrome (10%), multiple chemical sensitivities (10%). The number of previous investigations was 3.7 + 2.8.. The number of previous treatments for pain was 5.9 + 3.1 The number of previous pain treatment is related to CSI ($r=0.37$ by the Spearman test, $p<0.05$; $r=0.27$ by the Kendall test, $p<0.05$). The OAB-8v was 21 + 7.5 (range 2-34). The worsening of the symptoms related to the overactive bladder at OAB-8v was related to a greater CS ($r=0.37$ by the Spermann test, $p<0.05$; $r=0.27$ by the Kandell test, $p<0.05$).

Interpretation of results

Patients with long lasting pelvic pain show increased levels of CS and they develop progressively increasing number of other diseases associated to CS over the time, worsening of overactive bladder symptoms, use of drugs.

Concluding message

CS is one of the mechanisms of chronic neuropathic pain and this even more justifies a treatment as early as possible for any chronic pelvic pain syndrome with the aim to minimize the inevitable clinical sequelae

Disclosures

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