

DYSPAREUNIA RADIATED TO THE BLADDER MAY BE A POTENTIAL PROGRESSIVE PHENOTYPE OF THESE 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 a constellation of symptoms, including pelvic pain, pressure, and discomfort perceived to be related to the bladder with frequency, persistent urge, or nocturia in the absence of bacterial infection or other identified pathologic disease. A previous study established that interstitial cystitis/bladder pain syndrome (IC/BPS) patients had significantly more dyspareunia and fear of pain than healthy controls. Moreover, recent studies revealed sexual pain may be the one of "UPOINT" phenotypes (Urinary, psychosocial, organ specific, infection, neurogenic, tenderness) in IC/BPS patients. We proposed that patients diagnosed of IC/BPS with the presence of dyspareunia could be a specific phenotype and compared as a separate group with a pure IC/BPS without presence of dyspareunia. The purpose of this study is to examine the relationships between lower urinary tract symptoms including the symptom profile, using validated questionnaires, duration of symptoms, anesthetic maximal bladder capacity (MBC), severity of glomerulation, and dyspareunia in IC/BPS patients.

Study design, materials and methods

A total of 156 IC/BPS female patients were included in this study. The diagnosis was made on the consensus of IC/PBS proposed by the Society for Urodynamics and Female Urology criteria in 2008. All patients were diagnosed on the basis of chronic (> 6 weeks) pelvic pain, pressure, or discomfort perceived to be related to the urinary bladder accompanied by at least one other urinary symptom, such as frequency, persist urge, or nocturia, in the absence of infection or other identifiable causes. There were two questions for dyspareunia history: (1) "Do you feel pain during or after sexual intercourse" and (2) "At which site was the pain located (bladder, vagina, or both)". Urogenital prolapse, vaginal candidiasis, and cervical, uterine, and ovarian cancers were excluded. All women completed measures of pain severity (visual analog scale, VAS) and bladder symptom severity [IC Symptom Index, IC Problem Index, and the Pelvic Pain and Urinary/Frequency (PUF) scale]. Respondents were asked to recall if they experienced any sexual pain during or after sexual intercourse in the past 1 year. Cystoscopic hydrodistension during general anesthesia was performed for 5 minutes and maximal bladder capacity was also measured. We used Chi-square tests to evaluate the associations between dyspareunia condition (presence or absence) and severity of glomerulation. Significance was set at $p < 0.05$.

Results

Of the women with a current sexual partner, 61% (96/156) reported dyspareunia during or after sexual intercourse. Of the 96 dyspareunia respondents, 46% (44/96) reported pain in the bladder only, 43% (41/96) in the vagina only, and 11% (11/96) in both the bladder and the vagina. Patients with dyspareunia complained of more severe urological pain ($p = 0.02$), a higher PUF scale score ($p < 0.01$), and larger anesthetic maximal bladder capacity ($p = 0.04$) than patients without dyspareunia (Table 1). However, patients with dyspareunia at the bladder only more severe urgency ($p = 0.03$) and larger MBC ($p = 0.04$) compared to those without dyspareunia (Table 2). When examining patients with dyspareunia at the vagina only versus those without dyspareunia, no difference was found in bladder symptom and MBC (Table 3). There were no differences in symptomatic severity and MBC between patients with dyspareunia at the bladder and those at the vagina. There were no differences in the severity of glomerulation between patients positive and negative for dyspareunia ($p = 0.18$). Moreover, dyspareunia at the vagina only and that at the bladder only showed no differences in severity of glomerulation ($p = 0.23$, vagina only; $p = 0.24$, bladder only).

Interpretation of results

In our data, about 60% of IC/BPS patients complained of dyspareunia. Patients with dyspareunia have severe suprapubic pain, but not lower urinary tract symptoms, compared with patients without dyspareunia. In addition, a higher PUF score has been found in patients with dyspareunia. Sub-PUF score analysis showed that the reason why the PUF score is higher in patients positive for dyspareunia is according to higher sexual pain score and suprapubic pain score. IC/BPS patients with dyspareunia radiated to the urinary system (bladder) show more severe lower urinary tract symptoms (urgency). Dyspareunia radiated to the bladder may be a potential progressive phenotype of these IC/BPS patients.

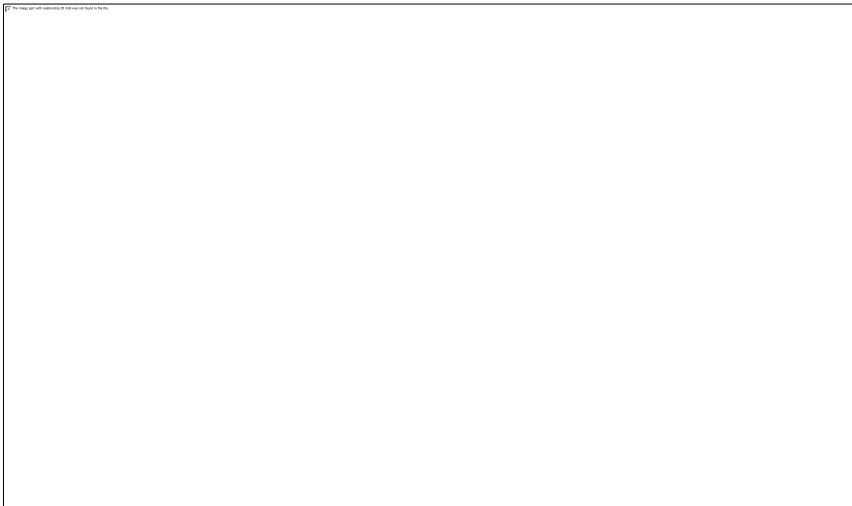
Concluding message

IC/BPS women with dyspareunia have significantly more severe urological pain and a higher PUF scale score than women without dyspareunia. Patients with dyspareunia radiated to the urinary system (bladder) show more severe lower urinary tract symptoms (urgency) and larger anesthetic MBC. Physicians should consider sexual pain disorder in the management of patients with IC/BPS and use the PUF scale to evaluate not only IC-specific lower urinary tract symptoms but also sexual pain disorder.

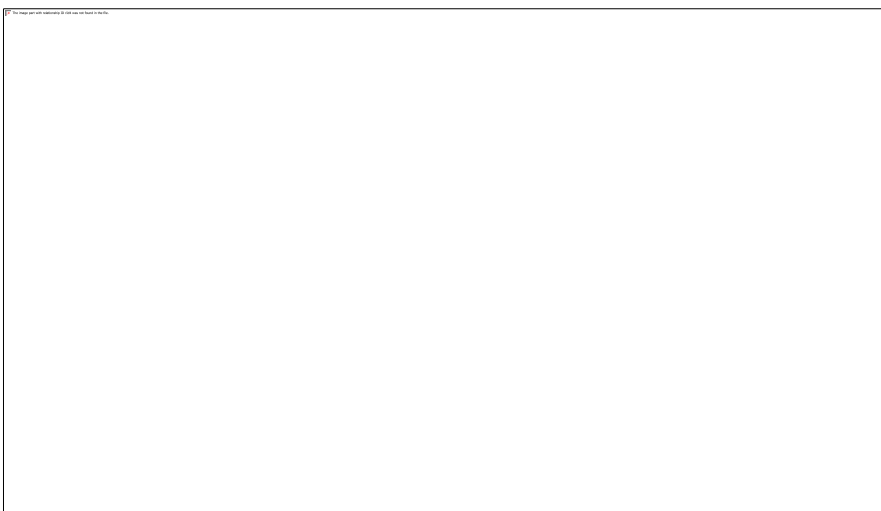
<Table 1> Differences between the severity of symptoms measured by VAS-pain scale, urgency, ICSI, ICPI, and PUF scale, and the presence or absence of dyspareunia



<Table 2> Comparison of patients negative for dyspareunia and those with pain in the bladder



<Table 3> Comparison of patients negative for dyspareunia and those with pain in the vagina



Disclosures

Funding: No **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Ethics Committee of Feng Yuan Hospital **Helsinki:** Yes
Informed Consent: Yes