

## Japanese Acupuncture - Current Research

### *Current Research of Acupuncture for Chronic Prostatitis/Chronic Pelvic Pain Syndrome*

Hisashi Honjo

Department of Clinical Acupuncture and Moxibustion,  
Meiji University of Integrative Medicine,  
Nantan, Japan

### Introduction

Currently, several studies of acupuncture for lower urinary tract symptoms including urinary frequency, urinary urgency, urinary incontinence and genito-urinary pain or discomfort have reported. This article reviewed for the acupuncture treatment of chronic prostatitis/chronic pelvic pain syndrome.

Prostatitis is a common disease in urological outpatients with an estimated account of about 2 million visits per year in United States.<sup>1</sup> Community-based studies disclosed that the prevalence of prostatitis-like symptoms ranged from 9.7% to 12% of men.<sup>2,3</sup> Chronic prostatitis/chronic pelvic pain syndrome is defined as a new category of prostatitis syndrome by the National Institutes of Health established an International Prostatitis Collaborative Network in 1995.<sup>4</sup> The classification is described as follows:

Category I. Acute bacterial prostatitis

Category II. Chronic bacterial prostatitis

Category III. Chronic prostatitis/chronic pelvic pain syndrome

III A. Inflammatory

III B. Non-inflammatory

Category IV. Asymptomatic inflammatory prostatitis

Chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS) is a syndrome with long history (at least 3 months or longer) of genito-urinary and pelvic pain or discomfort, associated with irritative and obstructive voiding symptoms and/or sexual dysfunction, and

accounts for 95% of cases with chronic prostatitis.<sup>5</sup> Therefore, CP/CPPS is diagnosed by the symptoms following exclusion of urinary tract infection. To assess the symptoms in patients with CP/CPPS a validated and reliable symptom assessment tool in chronic prostatitis has been used worldwide. The tool is the National Institutes of Health Chronic Prostatitis Symptom Index (NIH-CPSI) developed by the NIH Chronic Prostatitis Collaborative Research Network in 1999 (Appendix).<sup>6</sup>

This questionnaire is formed by 3 main headings as the pain or discomfort of symptoms (locations, frequency and severity), the urinary symptoms (irritative and obstructive voiding symptoms) and the impact of these symptoms on the patient's quality of life. Nine separate items could be addressed the important issues of chronic prostatitis. The domain of pain or discomfort is rated on a scale of 0-21. The urinary symptoms are rated on a score of 0-10 while the impact on quality of life is rated on a score of 0-12. Each of these three domains could be assessed independently. To take an instance of clinical study in Japan using Japanese version of the NIH-CPSI, the pain or discomfort domain score was significantly higher in the chronic prostatitis group than in the control group (9.79 vs. 0.72, respectively).<sup>7</sup> Additionally, a total score of NIH-CPSI that added the three domains and rated 0-43 could be evaluated the responsive measure of the treatment options, including acupuncture treatment.

There are multiple treatment options for CP/CPPS, including conservative therapy, antibiotics, anti-inflammatories, alpha-blockers, phytotherapeutics agents and other medical agents. Conservative therapy for the symptoms of CP/CPPS is mainly several suggestions for the

patients about diet (avoid spicy food, acidic food, alcohol, caffeine), lifestyle (avoid psychological stress and anxiety), activity (avoid long period of sitting and bicycling) and exercise (walking). By the NIH definition, Category III CP/CPPS is non-bacterial prostatitis, the majority of patients with CP/CPPS, however, have been treated by antibiotics.<sup>8</sup> Approximately 50% of patients with CP/CPPS treated with antibiotics showed improvement of their symptoms. Alpha-blockers which are the most effective medical therapy to lower urinary tract symptoms related to benign prostate hyperplasia (BPH) have been also used for the treatment of CP/CPPS. Recently, combinations of antibiotics and alpha-blockers appeared to achieve the greatest improvement in clinical symptom scores compared with placebo, which reported by a systematic review and meta-analysis.<sup>9</sup> Anti-inflammatories would be one of the common agents for CP/CPPS as well as phytotherapeutics (Cernitin pollen extract) in Japan. After all, these medical agents are not effective for all patients with CP/CPPS. Additionally, a 50% improvement in symptom score could be considered as an excellent response to the therapy in CP/CPPS.<sup>10</sup>

#### Acupuncture for CP/CPPS

We have performed acupuncture therapy for the patients with CP/CPPS.<sup>11</sup> In this study, ten male patients with non-inflammatory chronic pelvic pain syndrome with intrapelvic venous congestion were treated by acupuncture. Eight patients had previously received pharmacotherapy, which was unsuccessful. Acupuncture was performed using disposable stainless needles, which were inserted into the bilateral BL-33 points and rotated manually for 10 minutes. The treatment was repeated every week for 5 weeks without other therapeutic maneuvers. Transrectal

ultrasonography (TRUS) in conveniently screening intrapelvic venous congestion and magnetic resonance venography (MR venography) as well as clinical symptoms using the NIH chronic prostatitis symptom index (NIH-CPSI) and the international prostate symptom score (IPSS) were compared before and after the treatment. In the results, pain and QOL scores of the NIH-CPSI 1 week after the 5th acupuncture decreased significantly ( $p < 0.05$  and  $<0.01$ , respectively), compared with the baseline in all patients. The maximum width of the sonolucent zone 1 week after the 5th treatment also decreased significantly ( $p < 0.01$ , compared with the baseline, Figure 1 and Figure 2). Intrapelvic venous congestion demonstrated by MR venography was significantly improved in 4 patients.

Thus, we believe that acupuncture treatment is effective for the symptoms of CP/CPPS. Furthermore, other researcher reported the same kind of results in the similar therapeutic methods as our study.<sup>12</sup> In the study ninety-seven CP/CPPS patients received six sessions of acupuncture to the BL-33 acupoints once a week. Each patient compared NIH-CPSI before and after the treatment and on 12th and 24th weeks following the treatment. As the results, there was a statistically significant decrease in all of the subscores evaluated at all periods compared with the baseline. Eighty-six patients out of 93 (92.47%) were NIH-CPSI responders (more than 50% decrease in total NIH-CPSI score from baseline) at the end of the treatment. These results suggest that acupuncture appears to be a safe and potentially effective treatment in improving the symptoms and quality of life of men clinically diagnosed with CP/CPPS.

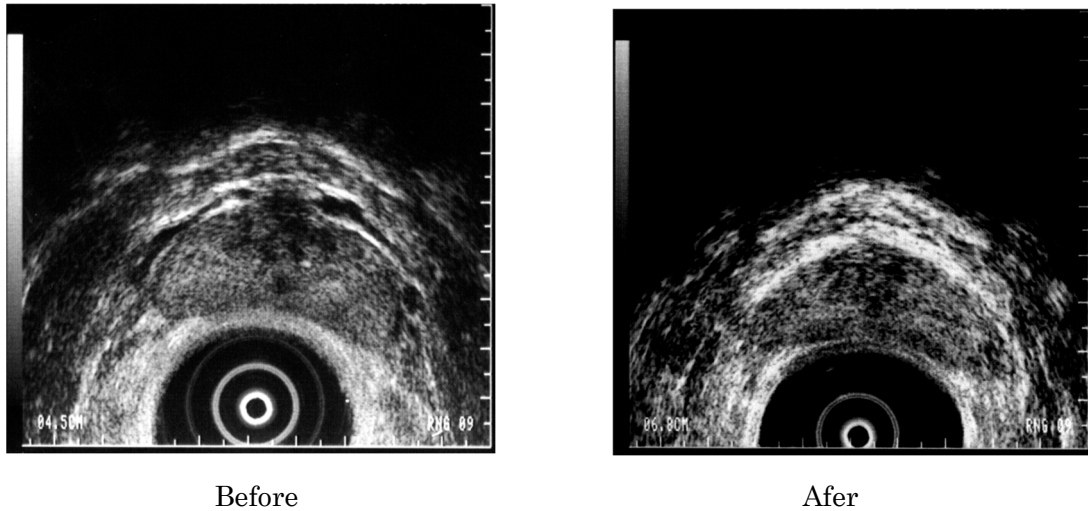


Figure 1 (Modified by Int J Urol, 11:607, 2004.)

**Figure 1 Changes in the findings of intrapelvic venous congestion by transrectal ultrasonography before and after acupuncture**

Transrectal sonograms of the prostate show the changes in a patient before and after acupuncture. The arrows show the dilation of the sonolucent zone. The maximum width of the sonolucent zone is 4.5 mm before and 1.3 mm after acupuncture.

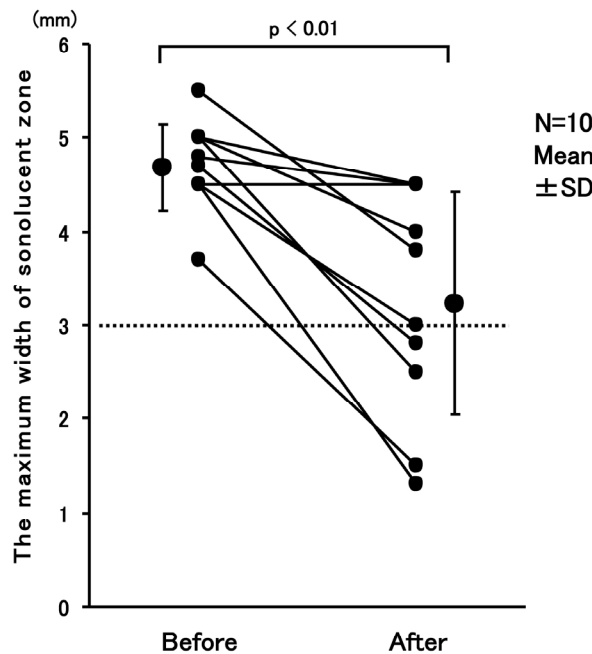


Fig. 2 (Modified by Int J Urol, 11:607, 2004.)

**Figure 2 Changes in the maximum width of the sonolucent zone by transrectal ultrasonography before and after acupuncture**

## Conclusion

This article reveals the therapeutic effects of acupuncture for non-inflammatory chronic pelvic pain syndrome. However, long-term effects still remains unknown. Further studies are needed, therefore, to clarify the effects of acupuncture treatment for non-inflammatory chronic pelvic pain syndrome in a larger number of patients in a randomized, placebo controlled trial.

## References

1. Collins MM, Stafford RS, O'Leary MP et al: How common in prostatitis? *J Urol*, 159: 1224-1228, 1998.
2. Nickel JC, Downey J, Hunter D et al: Prevalence of prostatitis-like symptoms in a population based study using the National Institutes of Health Chronic Prostatitis Symptom Index. *J Urol*, 165: 842-845, 2001.
3. Roberts RO, Jacobson DJ, Girman CJ et al: Prevalence of prostatitis-like symptoms in a community based cohort of older men. *J Urol*, 168: 2467-2471, 2002.
4. Nickel JC, Nyberg LJ, Hennenfent M for The International Prostatitis Collaborative Network: Research guidelines for chronic prostatitis: consensus report from the first national institutes of health international prostatitis collaborative network. *Urology*, 54: 229-233, 1999.
5. Krieger JN, Nyberg LJ, Nickel JC: NIH consensus definition and classification of prostatitis. *JAMA*, 282: 236-237, 1999.
6. Litwin MS, McNaughton-Collins M, Fowler FJJ et al: The National Institutes of Health chronic prostatitis symptom index: development and validation of a new outcome measure. *J Urol*, 162, 369-375, 1999.
7. Monden K, Tsugaya M, Ninomiya Y et al: A Japanese version of the National Institutes of Health Chronic Prostatitis Symptom Index (NIH-CPSI, Okayama version) and the clinical evaluation of cernitin pollen extract for chronic non-bacterial prostatitis. *Jpn J Urol*, 93: 539-547, 2002 (abstract in English, article in Japanese).
8. McNaughton-Collins M, MacDonald R Wilt TJ: Diagnosis and treatment of chronic abacterial prostatitis: a systematic review. *Ann Intern Med*, 133: 367-381, 2000.
9. Anothaisintawee T, Attia J, Nickel JC et al: Management of chronic prostatitis/ chronic pelvic pain syndrome: a systematic review and network meta-analysis. *JAMA*, 305: 78-86, 2011.
10. Nickel JC: Practical therapeutic strategies for the prostatitis patients: development of a treatment plan. In: Nickel JC, Bladon Medical Publishing, 55-80, 2002.
11. Honjo H, Kamoi K, Naya Y, Ukimura O, Kojima M, Kitakoji H, Miki T: Effects of acupuncture for chronic pelvic pain syndrome with intrapelvic venous congestion: preliminary results. *Int J Urol*, 11: 607-612, 2004.
12. Tugcu V, Tas S, Eren G, Bedirhan B, Karadag S, Tasci A: Effectiveness of acupuncture in patients with category IIIB chronic pelvic pain syndrome: a report of 97 patients. *Pain Med*, 11: 518-23, 2010.