

## **A Novel Treatment for Chronic Prostatitis: Treat the Gut**

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**Introduction and Objective:** Chronic Prostatitis (type III) (CP) is an idiopathic chronic pelvic pain syndrome (CPPS) characterized by pain, urinary and sexual dysfunction, and sterile expressed prostatic secretions. Interstitial cystitis (IC) is a CPPS which has recently been linked to small intestinal bacterial overgrowth (SIBO) and has shown improvement by treating gut microbial disturbance (1). This pilot study hypothesizes that rifaximin, a non-absorbable, gut-directed antibiotic improves CP.

**Methods:** CP patients were diagnosed by physical exam, NIH Chronic Prostatitis Symptom Index (CPSI) score  $\leq 15$  and by symptoms lasting more than 3 months of the last 6 months. Each was screened for SIBO by lactulose breath testing (LBT). Open-label rifaximin 550 mg TID was administered for 10 days. CPSI (possible range of 0-43) assessed CP symptoms one week and immediately prior to treatment and at post-treatment days 14 and 28. Global CP improvement (marked, moderate, mild, none) was queried at days 14 and 28.

**Results:** Ten of 12 patients were included with a positive LBT; 5/10 had irritable bowel syndrome (IBS). Excluded patients did not have IBS. The study subjects were 10 men: age  $45 \pm 12$  years (mean  $\pm 1SD$ ) and mean CP duration  $4.9 \pm 5.1$  years. Pre-treatment CPSI was  $26.1 \pm 8.0$  which decreased to  $22.2 \pm 5.7$  on post-treatment day 14 (15% improvement;  $p=0.067$ ) and was  $22.2 \pm 10.4$  on post-treatment day 28 (15% improvement;  $p=0.089$ ). Six patients showed CPSI improvement and 7 had global CP improvement (2 marked, 1 moderate, 4 mild) on day 14. Seven patients showed CPSI improvement and 5 noted global improvement on day 28 (1 marked, 2 moderate, 2 mild). One patient dropped out early. Among clinical responders at day 14, pre-treatment CPSI was  $30.7 \pm 7.1$  which decreased to  $21.7 \pm 7.0$  on day 14 (29.3% improvement;  $p=0.0025$ ). Among day 28 clinical responders, pre-treatment CPSI was  $27 \pm 9.0$  which decreased to  $21.1 \pm 10.9$  (21.9% improvement;  $p=0.012$ ).

**Conclusions:** SIBO may be common in CP patients. Treatment directed at the gut using a non-absorbable antibiotic appears to help CP which is similar to a prior report in IC. Extension of this study is in progress and if positive a double-blind study will be initiated.

### **Reference:**

1. Weinstock LB, Klutke CG, Lin HC. *Small intestinal bacterial overgrowth in patients with interstitial cystitis and gastrointestinal symptoms*. Dig Dis Sci 2008;53:1246-51.