



## **AUA Abstract Summaries 2010**

### **Studies Few But Promising at 2010 AUA Meeting**

The 2010 American Urological Association's annual meeting brought fewer studies of chronic prostatitis/chronic pelvic pain (CP/CPPS) than in the past. That's because most NIH research funding for CP/CPPS is now going toward long-term studies aimed at uncovering the cause, and it will be some time before we hear about the results. Nevertheless, the 2010 meeting brought news of potential new treatment approaches and an epidemiologic surprise. In one large-scale survey, most men who had CP/CPPS symptoms did not have them five years later. The nine studies summarized here hold promise of better therapy to come for men with CP/CPPS.

## **EPIDEMIOLOGY**

### **IDENTIFYING CHRONIC PROSTATITIS/ CHRONIC PELVIC PAIN SYNDROME FOR EPIDEMIOLOGIC STUDIES**

J. Quentin Clemens, Ann Arbor, MI, Lara Hilton, Marika Suttorp, Sandra Berry, Santa Monica, CA

Researchers have been estimating the prevalence of CP/CPPS based on whether men report they have either perineal or ejaculatory pain and a score of at least 4 on the pain section of the NIH Chronic Prostatitis Symptom Index (CPSI). Is that enough to distinguish men who have chronic prostatitis/chronic pelvic pain (CP/CPPS) from those with benign prostatic hyperplasia (BPH) or healthy men? Yes, concluded these researchers who checked the answers to these questions against real diagnoses in the patients who participated in the development of the NIH CPSI. They calculated the proportion of diagnosed CP/CPPS cases that were correctly identified as having CP/CPPS symptoms (sensitivity), and the fraction of non-CP/CPPS cases that were correctly identified as not having CP/CPPS (specificity). The sensitivity

of the question-based definition was 70%. The specificity was 91% when compared with BPH patients, and 99% when compared with controls. These criteria were used to find men with CP/CPPS symptoms for the following surprising study.

### **DESCRIPTIVE EPIDEMIOLOGY OF UROLOGIC PAIN SYMPTOMS IN MEN AND WOMEN**

Jessica Brewer, Carol Link, Watertown, MA, Paul Eggers, John Kusek, Bethesda, MD, John McKinlay, Watertown, MA

Could your CP/CPPS be gone in five years? Data from the Boston Area Community Health (BACH) survey show that only about 20% of men who had symptoms suggesting CP/CPPS in the initial survey still had the symptoms nearly five years later. That flies in the face of common wisdom that the conditions don't go away and that they get worse with age. The survey sampled adults aged 30 to 79 years old and included 1,268 men and 2,139 women (with an equal number of black, Hispanic, and white people). In the first BACH survey, 3.9% of men reported symptoms of CP/CPPS, 1.2% symptoms of interstitial cystitis, and 0.9% symptoms of both.

## **DIAGNOSIS/ASSESSMENT**

### **CLINICAL PHENOTYPING OF PATIENTS WITH CHRONIC PROSTATITIS-CHRONIC PELVIC PAIN SYNDROME IN TWO SPECIALIZED EUROPEAN INSTITUTIONS**

Florian Wagenlehner, Giessen, Germany, Vittorio Magri, Milan, Italy, Gianpaolo Perletti, Busto A./Varese, Italy, Sebastian Schneider, Wolfgang Weidner, Giessen, Germany

These researchers applied the UPOINT classification system to 1,219 CP/CPPS patients in Italy and Germany to characterize the population. They found that 65%, 35%, 84%, 10%, 41%, and 62% of patients had symptoms

that could be related to the urinary, psychosocial, organ specific, infection, neurologic, and tenderness of skeletal muscle characteristics or “domains,” respectively. The percentages of patients with symptoms of 1, 2, 3, 4, 5, and 6 domains were 11%, 24%, 33%, 22%, 10%, and 0.3%, respectively. Clearly, the patient population is very heterogeneous. Additional phenotypes might be helpful, and how they might be used needs to be evaluated in treatment studies, said these authors. The aim of phenotype-oriented treatment is to improve the outcome by more closely matching the treatments with the underlying causes of the condition in each.

## **TREATMENT**

### **DUTASTERIDE REDUCES PROSTATITIS SYMPTOMS COMPARED TO PLACEBO IN MEN ENROLLED IN THE REDUCE (REDUCTION BY DUTASTERIDE OF PROSTATE CANCER EVENTS) STUDY**

J. Curtis Nickel, Kingston, Canada, Teuvo L.J. Tammela, Tampere, Finland, Claudio Teloken, Porto Alegre, Brazil, Timothy H. Wilson, Ivy L. Fowler, Roger S. Rittmaster, Research Triangle Park, NC

Five-alpha reductase inhibitors (5ARIs) are used to treat benign prostate enlargement (BPH) and reduce prostate cancer risk, but they may also ease CP/CPPS symptoms. Some doctors have used 5ARIs this way “off label,” but now, an analysis of data from the Reduction by Dutasteride of Prostate Cancer Events (REDUCE) trial lends some evidence to that approach. Among the 679 men in the trial with prostatitis like pain, CPSI scores dropped significantly more for the men taking the 5ARI dutasteride than for those taking placebo, a mean of 5.2 points compared with 2.7. The difference was also significant for the 649 men with prostatitis-like syndrome: those who took dutasteride had their scores improve by 4.2 points compared with 2.8 for those taking placebo. Pain, urinary, and quality of life subscores also showed significant differences. Also, there were significantly more men who had at least 4- and 6-point reductions in their CPSI scores in the dutasteride group than the placebo group. Among the men with

prostatitis-like pain who took dutasteride, 63% had a 4-point reduction and 49% had a 6-point reduction, compared with 59% and 37% for men taking placebo. Among the men with prostatitis-like syndrome who took dutasteride, 58% had a 4-point reduction and 46% a 6-point reduction, compared with 47% and 35% of those taking placebo. The study doesn’t support 5ARIs as therapy for all men with CP/CPPS, but when men have other reasons to take a 5ARI, the drug may help ease CP/CPPS symptoms.

### **PHENOTYPICALLY DIRECTED MULTIMODAL THERAPY FOR CHRONIC PROSTATITIS/CHRONIC PELVIC PAIN SYNDROME: A PROSPECTIVE STUDY USING UPOINT**

Daniel Shoskes, Cleveland, OH, Robert Dolinga, Cleveland, OH, Curtis Nickel, Kingston, Canada

Researchers who developed a “phenotyping” or classification system for CP/CPPS have now applied it to treatment. Overall, the results were good when men were treated with therapies thought to be appropriate to their phenotype. It wasn’t feasible, however, for these researchers to do a placebo-controlled study. Nevertheless, this study was a start at proving the concept. One hundred patients who had had symptoms for an average of two years were offered multimodal therapy based on their positive “domains.” For example, men with urinary symptoms received alpha blockers or antimuscarinics; those with organ-specific (prostate) symptoms got quercetin; those with neurologic symptoms got pregabalin (Lyrica); and those with muscle tenderness got physical therapy. The most common domains were organ specific (70%), tenderness (64%), and urinary (59%). Eighty-four percent of the men had at least a 6-point improvement in their NIH-CPSI scores. That didn’t depend on how many domains were positive for the patient or how high the initial NIH-CPSI score was.

### **CHRONIC PELVIC PAIN IS ASSOCIATED WITH MAST CELL ACTIVATION AND IS AMENABLE TO MAST CELL DIRECTED THERAPIES.**

Praveen Thumbikat, Charles Rudick, David Klumpp, Anthony Schaeffer, Chicago, IL

Mast cells, which play roles in allergy, inflammation, and pain, have long been connected with interstitial cystitis (IC). But they may also play a role in CP/CPPS. And if they do, antihistamines might help. Antihistamines are actually a staple of IC therapy, but their effectiveness has been limited. The therapy might be more effective for CP/CPPS and IC if antihistamines were given in the right combinations. That's an avenue researchers from Northwestern University in Chicago are pursuing, based on their experiments in mice with a kind of induced CP/CPPS involving mast cells. These mice show hypersensitivity to touch and pain referred to the abdomen, similar to many CP/CPPS patients. The team also found evidence that a similar process may be at work in men with CP/CPPS, since they have products of mast cell degranulation in their prostatic fluid. The mice with induced prostatitis showed increased numbers and activation of mast cells in the prostate along with more dense nerves and expression of nerve growth factor, thought to play a role in pain. Mice genetically lacking in mast cells did not show any evidence of pelvic pain. A combination of two types of antihistamines plus a mast cell stabilizer reduced pain in mice with the induced prostatitis much more than any of those drugs alone. The combination included the histamine-1 blocker cetirizine (the allergy medicine Zyrtec), the histamine-2 blocker ranitidine (the stomach acid reducer Zantac), and cromolyn sodium (used in Nasalcrom). Each of those reduced pain only about 20 to 30 percent alone, but the combination reduced pain 64 percent, so the investigators think that, together, these drugs may have a synergistic effect. More research should tell us if some combination of medicines could help men with CP/CPPS.

**THE ROLE OF MEPARTRICIN IN CATEGORY III CHRONIC NONBACTERIAL PROSTATITIS/CHRONIC PELVIC PAIN SYNDROME (CPPS): A RANDOMIZED PROSPECTIVE PLACEBO CONTROLLED TRIAL.**

Aldo Franco De Rose, Paolo Traverso, Tommaso Montanaro, Giorgio Carmignani, Genoa, Italy

Mepartricin, an antimicrobial that reduces levels of sex hormones, produced significant improvements in NIH-CPSI, pain, quality-of-life scores in men with CP/CPPS. This drug has been tested in the condition before, but this new study uses a higher dose (80 mg/day) than a previous study (40 mg/day), and showed better responses. This small, placebo-controlled trial included 30 patients, with 15 receiving active treatment and 15 receiving placebo for 60 days. NIH-CPSI scores dropped from an average of 24 to 6 in the active treatment group, compared with 25 to 19 in the placebo group—a 70% improvement compared with an 18% improvement. Pain scores dropped from 12 to 3 in the mepartricin group compared with only 10 to 9 in the placebo group. Quality-of-life scores improved from 10 to 4 in the treatment group, compared with 10 to 9 in the placebo group. Urinary dysfunction, however, was not different. Levels of the hormones LH, FSH, and testosterone were not affected, whereas levels of 17 beta estradiol were significantly lower in the mepartricin group than in the placebo group at the end of the study. This change in estradiol levels may play a role in the improvement, said the authors.

**THE EFFICACY OF ANTICHOLINERGICS FOR CHRONIC PROSTATITIS/CHRONIC PELVIC PAIN SYNDROME IN YOUNG AND MIDDLE AGED PATIENTS - SINGLE-BLINDED, PROSPECTIVE, MULTI-CENTER STUDY**

Hyung-Jee Kim, Cheonan, Korea, Republic of, Yoon-Su Kyung, Cheonan, Korea, Republic of, Seung Hyo Woo, Daejeon, Korea, Republic of, Doo sang Kim, Cheonan, Korea, Republic of, Young Seop Jang, Daejeon, Republic of Korea

The overactive bladder (“gotta go”) drug solifenacin (Veiscare) seems to ease CP/CPPS symptoms, especially urinary symptoms. In this Korean study, 96 young and middle-aged men with CP/CPPS received the antibiotic ciprofloxacin (Cipro) (49 men) or ciprofloxacin

and solifenacin (47 men) for two months. The patients filled out symptom questionnaires at the beginning and after one and two months. Those that took both drugs had significant reductions in the NIH-CPSI scores and all its subscores, the total International Prostate Symptom Score, and its urine storage subscore. Scores related to erectile function improved, but not significantly. The researchers said they tried to eliminate confusion of BPH and CPPS by limiting the study to young and middle-aged men. Many middle-aged men, however, have BPH.

## **SOCIAL ISSUES**

### **CATASTROPHIZING AND SPOUSAL RESPONSES IN MEN SUFFERING FROM CP/CPPS**

Dean A. Tripp, Jessica Ginting, J. Curtis Nickel, Kingston, Canada, Kathleen J. Propert, Philadelphia, PA, John Kusek, Chronic Prostatitis Collaborative Research Network, Bethesda, MD

This study found that the association between pain and poor quality of life in 188 men with CP/CPPS was stronger when the men showed higher levels of “catastrophizing,” that is, seeing a negative situation as worse than it is. The study also found that pain and disability were most strongly related when spouses were more solicitous and supportive, such as doing more tasks and work for their partners. But, the authors said, it isn’t clear whether this relationship indicates a reaction to the pain and disability or whether the solicitous support helps create or maintain disability. A questioner from the audience at the meeting pointed out that lack of support from spouses, friends, or family can lead to negative consequences.

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From other individuals/groups

### **Biofilm Producing Bacteria Found in the Prostate**

Mazzoli S. Biofilms in chronic bacterial prostatitis (NIH-II) and in prostatic calcifications. FEMS Immunol Med Microbiol. 2010

Aug;59(3):337-44.

Certain bacterial infections in the prostate may form biofilms and play a role in chronic inflammation, speculates this Italian researcher. Biofilms are polymer films or “slime” that some bacteria make. The goo not only holds them tight onto surfaces, such as catheters, but can also makes them very resistant to antibiotics. In the prostate, she said, these films may let the bacteria persist in the ductal system, allowing \*them to “hibernate” and reinfect or to prompt areas of persistent immunologic activation and inflammation. This may be a reason that white blood cells are seen in prostatic fluid in nonbacterial prostatitis. Moreover, this process might prompt the bacteria to mineralize and calcify, forming stones. Although some urologists say these stones are fairly common, others think they occur more often in men with prostatitis and may play a role in chronic pelvic pain.

To find out whether biofilm-forming bacteria are common in the prostate, Dr. Mazzoli and her team tried to isolate these types of bacteria from men with chronic bacterial prostatitis, to assess the bacteria’s ability to produce biofilms in the lab, and to characterize prostatic bacteria and stones with scanning electron microscopy. The investigators isolated bacteria from men from all over Italy linked to the Sexually Transmitted Diseases Center at Santa Maria Annunziata Hospital in Florence. Prostatitis has been estimated to affect 13 percent of Italian men, with the majority of those having chronic bacterial prostatitis, said the author.

She and her team isolated 150 clinical bacterial strains isolated from chronic bacterial prostatitis patients, including 50 strains of *Enterococcus faecalis*, 50 *Staphylococcus* species, 30 *Escherichia coli*, and 20 miscellaneous gram-negative bacteria. The investigators also measured biofilm production and adhesion. The majority of *E. coli*, gram-negative bacteria, Staphylococci and Enterococci strains were strong or medium biofilm producers. In the scanning electron microscope images of the prostatic stones, the investigators saw bacteria-like forms similar to the species isolated from biological materials and calcifications of patients. Dr. Mazzoli said that this study proves, for the

first time, that biofilm-producing bacterial strains are present consistently in chronic bacterial prostatitis and that prostatic calcifications are biofilm-related.

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The three papers or abstracts below were submitted to the foundation by Dr Polacheck who is in Tucson Arizona .

## **Polacheck's Research Conclusions**

**January 2010,**

### **What is the Etiology of Chronic Prostatitis?**

For the past twelve years, I have been studying the cause of chronic prostatitis. Symptomatic patients have come to our center from all 50 states of the United States, as well as from the Americas, Europe, Asia Africa the Pacific and Australia seeking a diagnosis (and then treatment). In order to make a specific etiologic diagnosis, a vigorous prostate massage was done daily for one week. The expressed prostatic secretions (EPS) were collected and cultured for bacteria and bacteria-like organisms. I would like to report the results from 600 consecutive patients: over 99 percent were found to have a bacteria or bacteria-like organism, and many patients had multiple organisms.

Therefore, this disorder should be called:

### **Chronic Bacterial Prostatitis.**

### **Diagnosis of Chronic Prostatitis Multiple Massages Required**

**Introduction and objectives:** For the past twelve years, I have been studying the cause of chronic prostatitis. Symptomatic patients have come to our center from all 50 states of the United States, as well as from the Americas, Europe , Asia, Africa, the Pacific and Australia seeking a diagnosis (and then treatment)

**Methods:** In order to make a specific etiologic diagnosis, a vigorous prostate massage was done on each patient daily for at least five consecutive days. The expressed prostatic secretions (EPS) were collected and cultured

for bacteria and bacteria-like organisms. 671 patients were so studied.

**Results:** Bacteria and/or bacteria-like organisms were isolated from the EPS in almost all patients who were not on antibiotics at the time of their presentation. However we have observed that it was not uncommon for the first culture to be negative. Furthermore, we will present evidence that these bacteria were from the prostate itself and not the bladder nor the urethra.

**Conclusions:** Bacteria play an important role in chronic prostatitis. To successfully identify those causative organisms, however, patients require multiple prostate massages done on several, not only one, occasion.

### **Gram-Positive Bacteria are Commonly Associated With Chronic Prostatitis**

For the past twelve years, we have been studying chronic prostatitis. Symptomatic patients have come to The Prostatitis Center in Tucson, Arizona from all 50 states of the United States, as well as from the Americas, Europe, Asia, the Pacific and Australia seeking a diagnosis (and then treatment ).

**Methods:** We have studied 797 patients. For each patient a vigorous massage was done daily for five consecutive days. The expressed prostatic secretions (EPS) were collected and cultured.

Results: Bacteria and/or bacteria-like organisms were isolated from 99 percent of the patients who were not already on antibiotics at the time of presentation. Furthermore, the EPS from a great majority of the patients contained more than one organism (average 2.46 organisms per patient)

We have strong evidence that these organisms originated in the prostate itself and were not from the bladder nor the urethra. The most common species so isolated were Staphylococcus (from 78 percent of patients) and Streptococcus (from 62 percent). On the other hand, Gram negative rods, which had been expected to be common, were isolated from only 13%.

Other bacterial species were only rarely

isolated.

Conclusions: We conclude that common gram positive organisms are associated with most patients suffering with chronic prostatitis. Furthermore, we speculate that these bacteria likely play an important etiologic role.

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Dr Kongrad is writing a blog at: <http://blog.prostatitisurgery.com>. The article below is copied from his website as an example.

### **Does Winter Cause Prostatitis?**

There is reasonably good data to show that environmental forces can cause prostatitis. What about the weather?

The Baltic Times, which focuses its coverage on Latvia, Lithuania, and Estonia, has run an [article on its website](#) listing an array of seasonal illnesses ranging from psychosis to osteochondrosis. Along with this listing, it provides tips of diet and its role in disease prevention.

Among the various ailments, the article lists **bladder inflammation, urethral inflammation, and prostatitis** as consequences of **cold** wind, **wet** snow, wet feet, and lack of physical movement such as resulting from working in a sedentary environment. So the inquiring scientist, who does not reject clues potentially relevant to the epidemiology of prostatitis, asks: Are there any data to support this contention?

One answer to this question can be seen in an issue of The British Journal of Urology.

*Dr Mehik, a Finish researcher and others submitted an article titled: Epidemiology of Prostatitis in Finnish Men BJU Int. 2000 Sept;86 (4):443-8): a population based cross sectional study. They concluded that the incidence of prostatitis in Northern Finland exceeded other parts of the world and suggested it could be the colder weather. P.F.*

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We want to call your attention to a new video site that was developed by Dr. Gerald Chodak [www.prostatevideos.com](http://www.prostatevideos.com). It is mostly relevant to

prostate cancer but we think his explanation of clinical trials will be useful to prostatitis patients. We recommend these headings below taken from that site.

- \* About Dr. Gerald Chodak and Video Website
- \* Understanding Clinical Research Studies
  - o What is a Prospective Randomized Controlled Study?
  - o What is a Retrospective Study?
  - o What is an Epidemiological Study?

You might wish to check out a new book he offers on his website. *Winning the Battle Against Prostate Cancer*. He has offered to cover any subject the foundation or members want done.

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We feel fortunate to recently receive information from Dt Reet Mandar who works at The University of Taru in Estonia about research she and her students have done and had published. We will be trying to get permission from the Medical Journals and the authors to distribute the articles to all patients who read our newsletter and website, They have had papers accepted at: British Journal of Urology, European Association of Urology, International Journal of Andrology and The Open Infectious Diseases Journal.

Various websites:

<http://www.kidney.niddk.nih.gov/kudiseases/pub/udictionary/index.htm>

*To learn more about NIAID research on antimicrobial resistance, visit*

<http://www3.niaid.nih.gov/topics/antimicrobialResistance/>.

### **National Institute of Diabetes and Digestive and Kidney Diseases**

NIAID conducts and supports research-at NIH, throughout the United States, and worldwide-to study the causes of infectious and immune-mediated diseases, and to develop better means of preventing, diagnosing and treating these illnesses. News releases, fact sheets and other NIAID-related materials are available on the NIAID Web site at <http://www.niaid.nih.gov>. Write

Dr. Fauci about prostatitis and your suffering. New patients should get the fact sheet, **Prostatitis: Disorders of the Prostate** that is available from the National Kidney and Urologic Diseases Information Clearinghouse. Ask for publication No.08-4553. It is available at <http://kidney.niddk.nih.gov/kudiseases/pubs/prostatitis>.

The National Library of Medicine is always trying to help, offering websites such as *MedlinePlus* and *NIH Senior Health* for patients interested in becoming more educated about medical matters. Vanderbilt University Medical Center offers the *Eskind Biomedical Library*. In *Riding the waves of change together: are we paying attention?*, the director of Eskind, Dr. Nunzia Giuse, says, "Factors such as evidence-based medicine and the movement toward active patient participation in health care are among the recent trends that libraries have been able to anticipate and proactively move to address by developing new expertise."

Do not forget that some of the Mapp Network researchers may be looking for patients

The Prostatitis Foundation thanks Farr Labs LLC. for their support of this newsletter and our webpage. They are the makers of ProstaQ for Chronic Prostatitis. For more information visit [ProstaQ.com](http://ProstaQ.com) or call 877-284-3976.

with your qualifications. Please study their website regularly at [www.mappnetwork.org](http://www.mappnetwork.org).

*We wish to thank the Google Foundation for awarding the Prostatitis Foundation an educational grant in the form of advertising via their Adwords program.*

We have tried to bring you information that may be relevant to you or a family member's prostatitis. While there has been scant success solving the puzzle of prostatitis you can see there are a lot of people who have joined the battle. It has taken far more time than the foundation organizers ever expected. The officers and directors are unpaid volunteers who have conducted the learn-as-you-go effort. If you have a particular talent and you could volunteer please contact us. If you have an idea you think has been missed please contact us. [Mcapstone@aol.com](mailto:Mcapstone@aol.com). We are listing a new moderated forum on the front page of the website that we hope to slowly grow into. You could join that discussion.

Please remember The Prostatitis Foundation in your year end giving.

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