CHRONIC NON-BACTERIAL PROSTATITIS AND THERMAL THERAPY

LITERATURE
Third International Chronic Prostatitis Network
Transrectal thermotherapy of chronic prostatitis

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Transrectal thermotherapy (TRT) is an effective way to improve prostatitis of a chronic nature. Its mode of action is not clear but probably works to increase the local blood flow through the prostatic gland and pelvic muscle area. During Jan. 1990 to Dec. 1999, 2685 men (age 16-61 years) were treated at least two times (range 3-119 treatments). 485 men had to be treated more than two times. The equipment was manufactured by DELWA (Thermo H ). Each treatment interval was 12 minutes at a temperature of +41°C (+106° F) and the interval periods varied between one week to four weeks. The treatment was performed without any sedation/ anaesthesia. Prior to the treatment antibiotic Norfloxacin 500 mg x2 was orally given during 10 days. Transrectal prostatic massage was performed. Carcinoma of the prostatic gland was excluded testing PSA.

Results
95% of the material were satisfied/cured by this treatment.

Conclusion
TRT is an effective and safe alternative way to treat chronic prostatitis and furthermore, to prevent recurrency of this disease when used as a prophylactic manner. And most of the patients did not have the need of any more antibiotic treatment.
Transurethral microwave thermotherapy for nonbacterial prostatitis: a randomized double-blind sham controlled study using new prostatitis specific assessment questionnaires.

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PURPOSE: We investigated the effectiveness and durability of transurethral microwave thermotherapy in the treatment of chronic nonbacterial prostatitis using 2 new prostatitis specific assessments in a randomized, double-blind, sham controlled trial. MATERIALS AND METHODS: Patients with nonbacterial prostatitis were randomly assigned to receive either transurethral microwave thermotherapy or sham therapy. Patients were assessed using a symptom severity index and symptom frequency questionnaire. These 2 new prostatitis symptom assessment tools were validated by applying them to 30 similar patients without prostatitis. All nonresponders received transurethral microwave thermotherapy at 3 months and were reassessed at 6 months. Long-term followup of the responder group averaged 21 months. RESULTS: The symptom severity index and symptom frequency questionnaire were confirmed to be valid for symptom assessment in prostatitis patients. The transurethral microwave thermotherapy group benefited from therapy compared to the sham group. Of the sham group 50% had a favorable response after subsequent transurethral microwave thermotherapy. The 7 responders in the treatment group continued to improve during the subsequent 21 months. CONCLUSIONS: Transurethral microwave thermotherapy appears to be an effective, safe and durable treatment for some patients with nonbacterial prostatitis unresponsive to traditional therapy.

Publication Types:

- Clinical Trial
- Randomized Controlled Trial
Clinical experience with transurethral microwave thermotherapy for chronic nonbacterial prostatitis and prostatodynia.

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Chronic prostatitis and prostatodynia are troublesome disorders that are not responsive to any kind of treatment. Patients with treatment-resistant chronic nonbacterial prostatitis (n = 61) or prostatodynia (n = 17) for longer than 3 years underwent a single 1-hour session of transurethral microwave thermotherapy (TUMT) using the Prostatron. Complete symptom disappearance was obtained in 23% of patients and a partial response in 43%. Of the patients with prostatitis, 46% showed normalization and 31% an improvement of the leukocyte count in expressed prostatic secretion. In patients with prostatodynia, the corresponding figures were 35% and 41%. Most complications were temporary, but there was one case of epididymitis and one of reduction in the volume of the ejaculate. TUMT is well tolerated and safe, and it is effective in relieving the symptoms of many patients with nonbacterial prostatitis or prostatodynia. The possible adverse effects on fertility and urinary continence require further study.
Transurethral Microwave Thermotherapy for Nonbacterial Prostatitis: A Randomized Double-Blind Sham Controlled Study Using New Prostatitis Specific Assessment Questionnaires.
Nickel, J. Curtis; Sorensen, Ron

Abstract:
Purpose: We investigated the effectiveness and durability of transurethral microwave thermotherapy in the treatment of chronic nonbacterial prostatitis using 2 new prostatitis specific assessments in a randomized, double-blind, sham controlled trial.

Materials and Methods: Patients with nonbacterial prostatitis were randomly assigned to receive either transurethral microwave thermotherapy or sham therapy. Patients were assessed using a symptom severity index and symptom frequency questionnaire. These 2 new prostatitis symptom assessment tools were validated by applying them to 30 similar patients without prostatitis. All nonresponders received transurethral microwave thermotherapy at 3 months and were reassessed at 6 months. Long-term followup of the responder group averaged 21 months.

Results: The symptom severity index and symptom frequency questionnaire were confirmed to be valid for symptom assessment in prostatitis patients. The transurethral microwave thermotherapy group benefited from therapy compared to the sham group. Of the sham group 50 percent had a favorable response after subsequent transurethral microwave thermotherapy. The 7 responders in the treatment group continued to improve during the subsequent 21 months.

Conclusions: Transurethral microwave thermotherapy appears to be an effective, safe and durable treatment for some patients with nonbacterial prostatitis unresponsive to traditional therapy.
Cooled transurethral microwave thermotherapy for intractable chronic prostatitis--results of a pilot study after 1 year.

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OBJECTIVES: To evaluate the side effects, tolerability, and efficacy of transurethral microwave thermotherapy with urethral cooling (cooled TUMT) for chronic prostatitis/chronic pelvic pain syndrome in a prospective feasibility trial. Cooled TUMT, using the Targis system from Urologix, is an established treatment option for benign prostatic hyperplasia (BPH) with minimal side effects. METHODS: Patients with intractable chronic prostatitis/chronic pelvic pain syndrome and symptoms for more than 3 of the 6 months before treatment (National Institutes of Health-Chronic Prostatitis Symptom Index [NIH-CPSI] pain score of at least 8) were randomized to cooled TUMT at an intraprostatic temperature of either approximately 55 degrees C or approximately 70 degrees C. Tolerability, side effects, and efficacy were measured with standard diagnostic tests, including the NIH-CPSI. Subgroup analysis was performed to evaluate the effects with and without BPH comorbidity. RESULTS: A total of 42 patients were included in the study; 39 patients successfully completed treatment and 35 completed follow-up through 12 months. The baseline versus 12-month mean NIH-CPSI score was total score 23.4 +/- 6.4 versus 11.5 +/- 10.2 (improvement in mean value of 51%), pain score 11.5 +/- 2.8 versus 4.6 +/- 4.9 (improvement in mean value of 60%), quality-of-life impact score 7.2 +/- 2.9 versus 3.8 +/- 3.8 (improvement in mean value of 47%; all P <0.0001), and urinary score 4.7 +/- 2.8 versus 3.1 +/- 3.0 (improvement in mean value of 34%; P = 0.0079). Treatment discomfort was within the ranges reported for patients with Targis-treated BPH. Two patients had reduced sperm motility. Side effects were minimal and transient, resolved spontaneously or with medication, and were similar regardless of treatment temperature or BPH comorbidity. CONCLUSIONS: Cooled TUMT appears to be promising for intractable chronic prostatitis with or without BPH. Longer follow-up and a larger trial are required to evaluate the fertility impact and longer term durability further.
The efficacy of transrectal microwave hyperthermia (TMH) was investigated in 124 patients aged 20 to 55 years. Of them, 75 (60.5%) patients had chronic noninfectious and 49 (39.5%) patients infectious prostatitis. In addition to standard pre- and posttreatment examinations the following tests were made: bacteriological and biochemical tests of prostatic secretion, uroflowmetry, transrectal color Dopplerographic mapping. The course of the treatment included 10 one-hour sessions of microwave hyperthermia, drug therapy and prostatic massage. Patients with both forms of chronic prostatitis exhibited disorders of prostatic circulation, activated lipid peroxidation, low concentration of catalase in the organ secretion, defective urodynamics of the lower urinary tracts. More pronounced changes occurred in noninfectious process. Microwave hyperthermia produced clinical improvement, recovery of hemodynamics in the prostate, structure and function of cell membranes in prostatic secretion, positive response of urodynamics. Thus, TMH generated on domestic equipment can be considered as one of the methods of pathogenetically sound treatment of noninfectious and infectious chronic prostatitis.
Chronic prostatitis/chronic pelvic pain syndrome in elderly men: toward better understanding and treatment.

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Chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS) is the most common of the prostatitis syndromes. It is characterised by pelvic pain, with or without voiding symptoms. CP/CPPS accounts for 2 million office visits in the US alone. Recent epidemiological studies have shown that CP/CPPS can affect men at any age, including those in their 80s. The aetiology is unknown but proposals include infectious, autoimmune, neurologic and psychiatric causes. Men with CP/CPPS are much more likely to have had a past medical history of cardiovascular, neurologic, psychiatric or infectious disease (particularly sinusitis) as compared with asymptomatic individuals. Although leucocytes are commonly found in the prostatic fluid of these men, they do not correlate with the symptoms. The clinical evaluation now includes a validated, self administered symptom score, the National Institutes of Health Chronic Prostatitis Symptom Index (NIH-CPSI), which was designed as an outcome measure for treatment trials. This can aid in diagnosis and follow-up of patients' response to therapy. Treatment for CP/CPPS is empiric and limited by a lack of randomised, placebo-controlled clinical trials. Antimicrobials are commonly used to treat the symptoms of CP/CPPS. However, the finding that asymptomatic men have equal or greater numbers of bacteria which localise to the prostatic fluid, compared with men with CP/CPPS, has raised doubts about the contribution of infection to the symptoms. Other commonly used drugs include alpha-adrenoceptor antagonists, anti-inflammatory drugs, tricyclic antidepressants and anticholinergic agents. The adverse effects of these medications are a concern in older men with CP/CPPS. Other therapies available include minimally invasive procedures such as microwave thermotherapy and transurethral needle ablation, and now neuromodulation devices. Although much progress has been made, particularly in the last 7 years, considerable work still remains to be done to determine the aetiology and pathogenesis of CP/CPPS, and to develop mechanism based therapy that is shown to be effective in controlled trials.
[Treatment of external RF hyperthermia combining with alpha 1-adrenergic receptor blocker for patients with prostatodynia and chronic non-bacterial prostatitis]

[Article in Chinese]

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OBJECTIVES: To evaluate a new effective treatment for prostatodynia (PD) and chronic non-bacterial prostatitis (CNP). METHODS: One hundred and thirty-six patients suffered from PD or CNP were divided randomly into experiment group (n = 76), which were treated with external RF hyperthermia (ERF) combining with alpha 1-adrenergic receptor blocker Terazosin for 12 weeks, and control group (n = 60), which were only treated with ERF. Symptoms scores, urodynamic indexes and expressed prostate secretion were recorded pre- and post-treatments. RESULTS: MFR and AFR were significantly improved and symptoms scores significantly decreased in both groups (P < 0.05). The efficacy was better in experiment group than that in control group. The combination treatment also led to a significantly decrease in MUP and MUCP (P < 0.05). Additionally, the leucocytes in expressed prostate secretion were also reduced in experiment group (P < 0.05). CONCLUSIONS: Treatment of ERF combining with alpha 1-adrenergic receptor blocker for patients with PD or CNP was effective and had little side-effect, while the future curative effect should be observed furtherly.

Publication Types:

- Clinical Trial
- Randomized Controlled Trial
Interventions for chronic abacterial prostatitis.

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BACKGROUND: Chronic abacterial prostatitis is a common disabling but enigmatic condition with a symptom complex of pelvic area pain and lower urinary tract symptoms. The scope of treatments recommended for chronic abacterial prostatitis is a testament to how little is known about what causes the condition and how to treat it. As a result, chronic abacterial prostatitis often causes physician frustration, patient confusion and dissatisfaction, variable thresholds for referral, and potentially inappropriate antibiotic use. OBJECTIVES: Examine the evidence regarding the effectiveness of therapies for chronic abacterial prostatitis. SEARCH STRATEGY: Studies were identified through a search of MEDLINE (1966-2000), the Cochrane Library, bibliographies of identified articles and reviews, and contact with an expert. SELECTION CRITERIA: Studies were eligible if they: (1) are randomized controlled trials (RCTs) or controlled clinical trials (CCTs) (2) involve men with chronic abacterial prostatitis (3) control group receives placebo, sham intervention, active pharmacologic or device therapy for chronic abacterial prostatitis and (4) outcomes data are provided. Eligibility was assessed by at least two independent observers. DATA COLLECTION AND ANALYSIS: Study information on patients, interventions, and outcomes was extracted independently by 2 reviewers. The main outcome was the efficacy of treatment for chronic abacterial prostatitis vs. control in improving urologic symptom scale scores or global report of urinary tract symptoms. Secondary outcomes included changes in the prostate examination, uroflowmetry, urodynamics, analysis of urine, expressed prostatic secretions and seminal fluid, and prostate ultrasonography. MAIN RESULTS: The 15 treatment trials involved: medications used to treat benign prostatic hyperplasia (n=4 trials); anti-inflammatory medications (n=2 trials); antibiotics (n=1 trial); thermotherapy (n=5 trials); and miscellaneous medications (n=3 trials). The disparity between studies did not permit quantitative analysis. There were a total of 600 enrollees (age range 38-45). All but one of the trials were done outside the United States. REVIEWER'S CONCLUSIONS: The treatment trials are few, weak methodologically, and involve small sample sizes. The routine use of antibiotics and alpha blockers for chronic abacterial prostatitis is not supported by the existing evidence.
The small studies examining thermal therapy appear to demonstrate benefit of clinical significance and merit further evaluation. Additional treatment trials are required and they should report important patient characteristics (e.g., race), study design details and utilize clinically relevant and validated assessment measures.