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The ITU Commission organised and sponsored the following symposium at the above meeting.

Prostatitis - an Infectious Disease?

Moderators:

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2. Acute bacterial prostatitis – Korean experience
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3. Chronic bacterial prostatitis – an European multicentre study
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4. Treatment of chronic prostatitis/chronic pelvic pain syndrome – what is evidence based?
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Abstracts of the above lectures are detailed on the following pages.

Epidemiology of chronic prostatitis/chronic pelvic pain syndrome

John Krieger, Seattle (USA)

Prostatitis describes a combination of infectious diseases (acute and chronic bacterial prostatitis), chronic pelvic pain syndrome; and asymptomatic inflammation.

Materials and methods.

We employed evidence-based methods to review the epidemiology of prostatitis syndromes.

Results.

The prevalence of prostatitis symptoms could be compared in five studies surveying 10,617 men. Overall, 873 participants met various criteria for prostatitis, representing an overall rate of 8.2%, with prevalence ranging from 2.2 to 9.7%. A history of sexually transmitted diseases was associated with an increased risk for prostatitis symptoms. Men reporting a history of prostatitis symptoms had a substantially increased rate of benign prostatic hyperplasia, lower urinary tract symptoms and prostate cancer. In one study, the incidence of physician-diagnosed prostatitis was 4.9 cases per 1,000 person-years. Two studies suggest that about one-third of men reporting prostatitis symptoms had resolution after 1 year. Patients with previous episodes and more severe symptoms are at higher risk for chronic pelvic pain.

Discussion.

The prevalence of prostatitis symptoms is high, comparable to rates of ischemic heart disease and diabetes. Clinical evaluation appears necessary to verify that prostatitis is responsible for patients' symptoms. Prostatitis symptoms may increase a man's risk for benign prostate hypertrophy, lower urinary tract symptoms and prostate cancer. We need to define natural history and consequences of prostatitis, develop better algorithms for diagnosis and treatment, and develop strategies for prevention.

A resurgence of interest in prostatitis has occurred during the last decade. This has been accompanied by a new level of understanding of the epidemiology, morbidity and economic impact of these conditions. Much progress dates from the recognition that infection and inflammation are important in certain prostatitis syndromes. Despite limited information on the causes of other prostatitis syndromes, these conditions can be defined and important treatment studies have been initiated. This article employs evidence-based methods to review the epidemiology of prostatitis syndromes, examines the clinical implications of these data, and outlines areas for future research.

Acute bacterial prostatitis – Korean experience

Yong-Hyun Cho (Korea)

The Korean Association of Urogenital Tract Infection and Inflammation (KAUTII) conducted a multi-center retrospective analysis of acute bacterial prostatitis (ABP) to systemically organize the clinical experience including symptoms, management, microbiology and course of disease. The clinical records of 473 cases compatible with analysis from 16 urological centers, between 2001 and 2005, were reviewed. The susceptibility to ciprofloxacin in the pathogens including *E. coli* strains causing ABP was shown to be very low, fueling debate as to the efficacy of ciprofloxacin on uropathogens in Korea. Subcategorized according to the history of prior manipulation of the lower urinary tract, there were distinct characteristics between two groups (ABP with or without a history of the prior manipulation) in regard to the overall clinical and microbiological features. The difference of the distribution of pathogens between the two groups and the difference of the susceptibility between *E. coli* and the other pathogens should be reflected on empirical antibiotic treatment. In the group with prior manipulation, ciprofloxacin or cephalosporins alone are an inadequate choice and the combination administration of cephalosporins and amikacin is recommended during empirical therapy. The course of disease such as abscess formation and recurrence may fall under empirical management based on local microbiological aspects. So the management for ABP must be adjusted to local microbiological aspect according to the history of prior manipulation of the lower urinary tract.

Chronic bacterial prostatitis – an European multicentre study

Kurt Naber (Germany), S. Decker-Burgard (Germany), Pr H. Botto (France)

Introduction & Objectives: Levofloxacin 500 mg is a fluoroquinolone given once daily (OD) active against a wide range of gram-negative and gram-positive bacteria which has demonstrated its efficacy in the treatment of complicated urinary tract infections¹. It is also as effective as ciprofloxacin 500mg twice daily in the treatment of chronic bacterial prostatitis (CBP)². The study was aimed at further confirming in Europe the efficacy and safety of levofloxacin in chronic bacterial prostatitis.

Material & Method: Men with a history of CBP (category II), clinical signs and symptoms and laboratory evidence of prostatitis (Meares-Stamey “four glass” procedure) were enrolled in a prospective, multinational (7 countries) open-label study to receive levofloxacin 500mg OD per os for 28 days. They were followed for 6 months. Clinical signs and symptoms were evaluated 5-12 days and then at 1, 3 and 6 months post-treatment. Microbiological eradication rate was determined at 1 and 6 months post-treatment. A medical expert team (MEA) validated clinical and microbiological end-points. Spontaneously reported adverse events were collected. The statistical analysis consists of point-estimates for the proportion of subjects and corresponding 95%-confidence intervals calculated using Pearson-Clopper values.

Results: A total of 117 patients were treated (age 45.0 years, duration of CBP 48,0 months, median values). A Gram-negative bacteria was identified in 55 patients (mainly E.coli, n=36) and a Gram-positive bacteria in 50 cases (mainly E.faecalis, n=13 and S.epidermidis, n=11), Of the 100 men evaluable for clinical outcome (ITT population), the clinical success rate (cured and improved patients) was 92% [84.8, 96.5], 77.4%[68.2, 84.9], 66.0% [56.2, 75.0], and 61.9% [51.9, 71.2], at 5-12 days, 1 month, 3 months and 6 months post-treatment. Microbiological eradication rates (in the microbiologically assessable population) were 83.7% (82/98) at 1 month and 91.2% (52/57) at 6 months post-treatment. Levofloxacin was well tolerated. Three patients discontinued therapy for adverse event and 15 patients (12.8%) experienced at least one treatment-emergent adverse event (mainly gastrointestinal (n=7) and musculoskeletal and connective tissue disorders (n=6)).

Conclusions: Levofloxacin 500mg once daily given orally for 28 days is clinically and microbiologically effective in the treatment of chronic bacterial prostatitis and is well tolerated.

¹Croom KF. Drugs 2003, 63: 2769-2802

²Bundrick W. Urology 2003, 62, 537-541

Treatment of chronic prostatitis/chronic pelvic pain syndrome – what is evidence based?

J. Curtis Nickel (Canada)

Objectives:

1. To review the recent clinical evidence supporting the traditional biomedical management of chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS)
2. To recommend a “best-evidence” approach to the management of CP/CPPS

The introduction of an internationally accepted classification system and a validated outcome index, the NIH-CPSI, has stimulated the design and implementation of comparable randomized placebo controlled trials that have allowed researchers and clinicians to objectively evaluate evidence based efficacy data as well as compare the various therapies advocated for chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS). Evidence based recommendations will be based on assessment of clinical trials that have met the following strict criteria:

1. Clearly defined population of CP/CPPS men;
2. Randomized placebo controlled design;
3. Validated outcome analyses (NIH-CPSI); and
4. Peer reviewed (published in a peer reviewed journal).

Recommendations:

- Antimicrobials cannot be recommended for men with longstanding, previously treated CP/CPPS, however some clinical benefit might be obtained in antimicrobial naïve early onset prostatitis patients.
- Alpha-blockers can be recommended as a first line medical therapy, particularly in alpha-blocker naïve men with moderately severe symptoms who have relatively recent onset of symptoms. Alpha-blockers must be continued for over 6 weeks (likely over 12 weeks). Alpha-blockers cannot be recommended in men with long standing CP/CPPS who have tried and failed alpha-blockers in the past.
- Anti-inflammatory therapy is not recommended as a primary treatment; however, it may be useful in an adjunctive role in a multi-modal therapeutic regime.
- At this time, hormonal therapy cannot be recommended as a monotherapy, but should be evaluated in selected patients such as older men with concurrent BPH.
- The early data on herbal therapies, particularly quercetin and cernilton, are intriguing, but a larger multi-center randomized placebo controlled trial for quercetin and peer review of cernilton data is required before a high level of evidence recommendation can be made on its use.
- Many other medical therapies have been suggested and tested in small or uncontrolled pilot studies or have not yet been subjected to peer review. Muscle relaxants, Cernilton or pollen extract, saw palmetto, corticosteroids and allopurinol have all been suggested and used but recommendations will have to wait for results from properly designed randomized placebo controlled trials that have undergone peer review.
- A number of uncontrolled clinical studies have suggested that multimodal therapy is more effective than monotherapy in patients with long term symptoms. Future trials will have to assess such multi-modal therapy.

New avenues of therapy will involve novel strategies incorporating neuromodulatory, immunomodulatory, physical and cognitive-behavioural therapies. Such treatment trials are already ongoing and hold promise for better management of CP/CPPS.