

that these specific nerves derive from the cavernous within the clitoral bodies and therefore are supplied by the pelvic autonomic nerves.

The location of these autonomic pelvic nerves were seen at the level of the urethra at the 5 and 7 o'clock joining more cranially the more nervous complex located at the anterior lateral sides of the vagina at the 2 and 10 o'clock positions. There was also a nNOS non-immunoreactive but otherwise autonomic nerve entering the muscular layer of the urethral sphincter complex at the mid urethra. There were no other autonomic nerves seen in the mid urethra.

The location of a dense network of autonomic nerves at the level of the vagina supplied by the inferior hypogastric plexus occupying the 2 and 10 o'clock positions at the rectum mainly at the lateral and anterior vaginal wall which were thinning out on the anterior wall towards the urethra. From there, fibers traveled either along the pathways described above towards the clitoris or towards the proximal a mid urethral sphincter.

We learn from these studies for complex surgical procedures at the level of the pelvic floor and urethra to maintain micturition, continence and sexuality in female patients the preservation of autonomic nerves is mandatory and must put there pathways within the whole pelvis into consideration. Further studies will have to follow to demonstrate the functional value and possible changes in adulthood but definitely these data warned consideration during surgery.

Dr. Arnulf Stenzl

*Professor and Chairman of Urology
Eberhard-Karls-University Tuebingen
Tuebingen, Germany*

UROLOGICAL ONCOLOGY

A single immediate postoperative instillation of chemotherapy decreases the risk of recurrence in patients with stage Ta T1 bladder cancer: a meta-analysis of published results of randomized clinical trials

Sylvester RJ, Oosterlinck W, van der Meijden AP

European Organization for the Research and Treatment of Cancer Data Center, Brussels, the Universitair Ziekenhuis Gent, Gent, Belgium

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Purpose: We determined if 1 immediate instillation of chemotherapy after transurethral resection (TUR) decreases the risk of recurrence in patients with stage Ta T1 single and multiple bladder cancer overall and separately.

Materials and Methods: A meta-analysis was performed of the published results of randomized clinical trials comparing TUR alone to TUR plus 1 immediate instillation of chemotherapy.

Results: Our study included 7 randomized trials with recurrence information on 1476 patients. Based on a median followup of 3.4 years and a maximum of 14.5 years, 267 of 728 patients (36.7%) receiving 1 postoperative instillation of epirubicin, mitomycin C, thiotepa or (2'R)-4'-O-tetrahydropyranyl-doxorubicin (pirarubicin) had recurrence compared to 362 of 748 patients (48.4%) with TUR alone, a decrease of 39% in the odds of recurrence with chemotherapy (OR 0.61, $p < 0.0001$). Patients with a single tumor (OR 0.61) and those with multiple tumors (OR 0.44) benefited. However, after 1 instillation 65.2% of patients with multiple tumors had recurrence compared to 35.8% of patients with single tumors, showing that 1 instillation alone is insufficient treatment for patients with multiple tumors.

Conclusions: One immediate intravesical instillation of chemotherapy significantly decreases the risk of recurrence after TUR in patients with stage Ta T1 single and multiple bladder cancer. It is the treatment of choice in patients with a single, low risk papillary tumor and is recommended as the initial treatment after TUR in patients with higher risk tumors.

Editorial Comment

This paper should be read by every urologist dealing with superficial bladder cancer. Briefly, the facts are clear—single-shot instillation is a highly effective treatment with low cost. It should be given after every TUR. High-risk tumors deserve further therapy, to my opinion with BCG.

Intravesical cytotoxic drug instillations have their clear role in urology now: as single shot therapy.

Dr. Andreas Böhle
Professor of Urology
HELIOS Agnes Karll Hospital
Bad Schwartau, Germany

FEMALE UROLOGY

Urinary urgency and frequency, and chronic urethral and/or pelvic pain in females. Can doxycycline help?

Burkhard FC, Blick N, Hochreiter WW, Studer UE
Department of Urology, University of Berne, Berne, Switzerland
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Purpose: Persistent urinary urgency and frequency, and chronic urethral and/or pelvic pain in women are often a diagnostic and therapeutic challenge. This can be frustrating for patients and physicians. The search for an infectious agent often proves futile and after multiple ineffective treatment regimens patients may be classified as having interstitial cystitis or referred to a psychiatrist as the last option. We evaluated whether treatment with doxycycline of the patient and her sexual partner would be beneficial.

Materials and Methods: Women presenting with a history of urinary urgency and frequency, and chronic urethral and/or pelvic pain often associated with dyspareunia and/or a history of recurrent urinary tract infection were evaluated. Initial examinations included urethral and cervical/vaginal swabs, serum analysis, urine examination and culture, and bladder barbitage. A total of 103 women with a median age of 46 years (range 21 to 84) and with a median symptoms history of 60 months (range 3 to 480) were included. All patients had trigonal leukoplakia at cystoscopy, in 15% an infectious organism was identified and 30% had leukocyturia. All were treated with doxycyclines, and a vaginal antimicrobial and/or antimycotic agent following the same regimen, including treatment of the sexual partner.

Results: After treatment with doxycycline 71% of the women were symptom-free or had a subjective decrease in symptoms.

Conclusions: Treatment with doxycycline is effective in more than two-thirds of patients complaining of persistent frequency and urgency, chronic urethral and/or pelvic pain, and dyspareunia as well as a history of recurrent urinary tract infections. In women with negative urinary cultures but a history of urgency/frequency probative treatment with doxycycline is justified and endoscopic findings may support the hypothesis of chronic infection. This should be done especially before contemplating psychiatric treatment or diagnosing the patient