

They did find extrapelvic nodal disease, but in all cases these pN2 patients. Most of us agree with the authors' conclusion that these are not the patients which can be cured surgically.

For reconstructive purposes it is important that we can limit our lymphadenectomy in certain patients to a level where we do not have to dissect the sympathetic autonomic nerve supply to the hypogastric plexus and pelvic floor. Thereby functional results of an orthotopic neobladder and vagina can be improved without compromising oncological results.

### References

1. Vieweg J, Gschwend JE, Herr HW, Fair WR: The impact of primary stage on survival in patients with lymph node positive bladder cancer. *J Urol.* 1999; 161: 72-6.
2. Stenzl A, Colleselli K, Bartsch G: Update of urethra-sparing approaches in cystectomy in women. *World J Urol.* 1997; 15: 134-8.

**Dr. Arnulf Stenzl**

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

## UROLOGICAL ONCOLOGY

---

### **Post-brachytherapy transurethral resection of the prostate in patients with localized prostate cancer**

Flam TA, Peyromaure M, Chauveinc L, Thiounn N, Firmin F, Cosset JM, Bernard D.

Department of Urology, Hopital Cochin, Paris, France

*J Urol.* 2004; 172: 108-11

**Purpose:** We assessed the rate and results of transurethral resection of the prostate (TURP) in patients previously treated with brachytherapy as monotherapy for localized prostate cancer.

**Materials and Methods:** From May 1998 to May 2003, 600 patients with localized prostate cancer were treated with brachytherapy at our institution. Brachytherapy was performed as monotherapy with curative intent for clinically localized prostate cancer without adjuvant treatment in patients with clinical stages T1c (68.4%) or T2a (31.6%) disease. -Iodine and palladium implants were used in 583 and 7 patients, respectively. A real-time interactive implantation technique was used in all but the first 17 patients, who were treated using a preplanned technique.

**Results:** Of the 600 patients 19 (3.1%) underwent TURP after brachytherapy. Among the patients with acute urinary retention the median interval between prostate brachytherapy and urinary retention was 2 months (range 0.5 to 32). No TURP was done within 6 months after implant. The median interval between prostate brachytherapy and TURP was 7 months (range 6 to 41) and median prostate specific antigen (PSA) before TURP was 0.5 ng/ml (range 0.04 to 3.4). In the 19 patients the median weight of resected prostatic tissue was 8 gm (range 2 to 19) and 1 to 11 seeds were removed (median 5). The perioperative and postoperative courses were uneventful. There was no TURP related incontinence. With a median followup of 28 months after brachytherapy (range 7 to 48) no patient had clinical or biochemical evidence of disease progression, and for the group of 19 patients who underwent TURP median serum PSA at the end of followup was 0.38 ng/ml (range 0.03 to 3.4).

**Conclusions:** After brachytherapy as monotherapy, TURP can be done safely if indicated. In our experience the resection of prostatic tissue along with a limited number of seeds at least 6 months after implantation did not impair PSA based biological and clinical results of brachy-therapy.

### Editorial Comment

In rare instances TUR-P is necessary after brachytherapy for prostate cancer. According to the literature there is a high risk of incontinence in these patients. The authors addressed this point and stated that there is no major risk of TUR-P related incontinence after brachytherapy.

Even more interestingly, pathological examination of resected tissue showed mostly fibromuscular tissue with rare atrophic prostatic glands and no evidence of cancer in all patients except for one, who had persistent prostate cancer with gleason score of 8 on the TUR-P specimen 7 months after brachytherapy, thus contradicting for brachytherapy previous notes on external beam radiation that viable tumor tissue is detectable long-term after irradiation.

**Dr. Andreas Böhle**

*Professor of Urology*

*HELIOS Agnes Karll Hospital*

*Bad Schwartau, Germany*

### Relationship between initial prostate specific antigen level and subsequent prostate cancer detection in a longitudinal screening study

Antenor JA, Han M, Roehl KA, Nadler RB, Catalona WJ

Departments of Neurology, Washington University, School of Medicine, St. Louis, Missouri, USA

*J Urol. 2004; 172: 90-3*

**Purpose:** Previous studies of archived blood samples from nonscreened populations have shown an association between the prostate specific antigen (PSA) and the subsequent detection of prostate cancer. In the current study we evaluated the relationship between the initial screening PSA and the subsequent risk of prostate cancer detected in a prospective, longitudinal screening study. We also examined the relationship between initial PSA and the clinicopathological features of the cancers detected.

**Materials and Methods:** Between May 1991 and November 2001 we enrolled 26,111 volunteers in our PSA and digital rectal examination based prostate cancer screening study. The men were followed biannually or annually depending on the results of previous screening tests. The chi-square and Kruskal-Wallis tests were used to compare the clinical stage, pathological stage and Gleason score of subsequently detected prostate cancers as well as the time to cancer detection in different initial screening PSA strata.

**Results:** The initial screening PSA stratum was strongly associated with the subsequent detection of prostate cancer as well as the clinicopathological stage and grade of the cancers detected.

**Conclusions:** Even in the lower PSA ranges initial screening serum PSA can help identify men at increased risk for subsequent prostate cancer detected in a longitudinal screening study.

### Editorial Comment

This paper is worthwhile reading for all urologists dealing with prostate cancer.

In this screening study the risk of prostate cancer is estimated dependent on the initial PSA value. Only 1% of men with initial PSA less than 1.0 ng/ml were subsequently diagnosed with prostate cancer. In contrast, more than half of the men with initial PSA greater than 10 ng/ml were subsequently diagnosed with cancer. 77% of those with initial PSA between 2.6 and 4.0 had organ confined disease while 67% with initial PSA between 4.0 and 10.0 had organ confined disease (  $p=0.005$  ) Of the men with initial PSA between 2.6 and 4.0 ng/ml 42% eventually had PSA that increased above 4.0 ng/ml, while only 2% of those with initial PSA less than 1.0 ng/ml had PSA that increased above 4.0 ng/ml during follow up.

The detailed tables show, that men with initial screening PSA between 2.0 and 3.0 had 14.9% relative risk of developing prostate cancer whereas men with PSA 3.0 and 4.0 had relative risk of 23.3%.

All together these data support the notion, that close follow up of men with initial PSA of at least higher than 2.5 should be considered.

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

### **Biochemical failure as single abnormality in patients with prostate cancer following radical treatment with external radiotherapy: follow-up without immediate treatment**

Faria SL, Salah M, David M, Souhami L, Duclos M, Shenouda G, Deblois F, Janick C, Freeman CR  
Department of Radio Oncology and Epidemiology of McGill University, Montreal General Hospital,  
Montreal, Quebec, Canada  
*Int Braz J Urol. 2004; 30: 289-95*

**Introduction:** Biochemical failure has been defined as 3 consecutive increases in PSA following curative treatment of prostate cancer. The appropriate management in such cases is controversial. The most usual treatment has been early introduction of hormones. Such patients will live for many years and hormone therapy causes important secondary effects and increases costs. The guideline in our Department of Radiotherapy has been to follow up, with no initial therapy, cases with low PSA and short PSA doubling time. The present study reports this experience.

**Materials and Methods:** 528 patients with localized prostate cancer were treated by radical approach between 1992 and 1999, with external radiotherapy, with or without adjuvant hormone therapy. After a median follow-up of 77 months, there were 207 (39%) cases with biochemical failure, 78 of which were followed without therapy after the identification of biochemical failure. All of them were asymptomatic patients and had negative radiographic examinations or did not have imaging exams requested since they presented a favorable outcome. The follow-up included at least 2 annual visits with physical examination and PSA.

**Results:** Of the 78 patients with biochemical failure followed without initial therapy, 7 died from other causes than prostate cancer and the remaining 71 cases were alive and asymptomatic in the last follow-up. Prognostic factors previous to radiotherapy such as stage and Gleason score were not considered when deciding for follow-up without initial therapy in these cases. The most significant aspects considered for this decision were low PSA value (median PSA on the last visit for the 78 cases was only 3.9 ng/mL) and a slow PSA doubling time (in the present experience the median PSA doubling time was 22.5 months).

**Conclusion:** There seems to be space for expectant management, without initial hormone therapy, in patients with prostate cancer who present biochemical failure and are asymptomatic after radical external radiotherapy. This decision is important, since early introduction of hormones brings late effects and is expensive. Prospective and randomized studies are required to define this issue.

### **Editorial Comment**

The issue of treatment for rising PSA after definitive therapy, either by external beam radiation therapy, the subject in this report, or by radical prostatectomy remains a critical dilemma in the management of patients with prostate cancer. It is critical because of the frequency of occurrence (in this report 39% of 528 patients), the lack of evidence-based medicine upon which to ground one's decision, and the apprehension that is associated

with serial PSA monitoring. As this report indicates, the therapy is often prompted by a “chicken switch” reaction. Until data is available, and it is unlikely that it will be in the foreseeable future, careful evaluation of prognostic variables as the authors describe, provide the therapist with at least a logical approach to triggering the switch to androgen deprivation. Pretreatment of Gleason score and PSA and post-treatment progression indicators as PSA level and doubling time currently provide the trigger for the delivery of androgen deprivation to those for whom it will benefit most and withhold it from those who are at sufficiently low risk that the morbidity consequence to the therapy equals or outweighs the benefits that androgen therapy could deliver. Clinical trials will provide the most useful and unbiased information.

Some of the current Phase III trials addressing the issue of PSA recurrence are continuous vs intermittent androgen deprivation after irradiation (JPR7 – NCI, Canada); androgen deprivation and immediate vs delayed chemotherapy (RTOG, P0014), androgen deprivation ± thalidomide (NCI-00-C0080) and for patients with a rising PSA after androgen deprivation but without evidence of metastatic disease, a trial comparing second line hormone therapy (ketoconazol + hydrocortisone) to chemotherapy (docetaxel and estramustine – ECOG 1899).

Other agents are being investigated to address the rising PSA; i.e. Provenge, Atrasantin (endothelin-A inhibitor), Avastin (angiogenesis inhibitor).

***Dr. Paul F. Schellhammer***

*Program Director of the Virginia Prostate Center  
Professor of Urology, Eastern Virginia Medical School  
Norfolk, Virginia USA*

## FEMALE UROLOGY

---

### **Percutaneous tibial nerve stimulation in the treatment of overactive bladder: urodynamic data**

Vandoninck V, van Balken MR, Agrò EF, Petta F, Micali F, Heesakkers JPFA, Debruyne FMJ, Kiemeneij LALM, Bemelmans BLH

Department of Urology, University Medical Center Nijmegen, PO Box 9101, NL-6500 HB Nijmegen, The Netherlands

*Neurourol Urodyn. 2004; 23: 246-51*

**Aim:** The aim of this study was to evaluate urodynamic changes after percutaneous tibial nerve stimulation (PTNS) for the treatment of complaints related to overactive bladder syndrome and to search for urodynamic-based predictive factors.

**Methods:** Ninety consecutive patients with symptoms related to overactive bladder syndrome were enrolled in this study. Patients underwent 12 PTNS sessions. For evaluating objective success, the primary outcome measure was a reduction in number of urinary leakage episodes of 50% or more per 24 hours. Patients' request for continuation of therapy was considered subjective success. This study focused on urodynamic features at baseline and on changes found after 12 PTNS treatments.

**Results:** The objective success rate was 56% (leakages/24 hours). Subjective success rate was 64%. Frequency/volume chart data and quality of life scores improved significantly ( $P < 0.01$ ). Pre- and posturodynamic data were available from 46 participants. Detrusor instabilities (DI) could be abolished in a few cases only. Increments in cystometric bladder capacity and in volume at DI were significant ( $P = 0.043$  and  $0.012$ , respectively). Subjects without detrusor instabilities at baseline were 1.7 times more prone to respond to PTNS (odds ratio, 1.75; 95% confidence interval [CI], 0.67-4.6). The more the bladder overactivity was pronounced,