Anatomical risks of transobturator suburethral tape in the treatment of female stress urinary incontinence

Delmas V
Institut d'Anatomie, UFR biomedicale, Universite Paris 5, Service d'Urologie, Hopital Bichat, Paris
Eur Urol. 2005; 48: 793-8

Introduction: The objective of this study was to define the anatomical structures crossed by transobturator tape.

Materials: Ten fresh, female anatomical subjects aged 74 to 89 years.

Methods: Transobturator tape was inserted by outside-in way. The position of the tape was verified by perineal and abdominal dissection.

Results: Transobturator tape has a transverse course. It crosses the adductor muscles close to their pubic insertion and passes over the inferior border of the obturator foramen by crossing the obturator membrane, before reaching the middle plane of the perineum after having crossed the obturator internus muscle. The tape passes above the internal pudendal pedicle and then under the levator ani muscle, under the tendinous arch of the pelvic fascia and continues in the middle third of the urethrovaginal septum. It avoids femoral and obturator vessels in the thigh and pudendal vessels in the perineum.

Conclusion: The anatomical course of transobturator tape shows that the anatomical structures crossed by the tape are muscle and fascia and, when the technique is performed correctly, no major neurovascular structures are in contact with the tape.

Editorial Comment

All versions of Tension-free Vaginal Tape present a risk of vesical, vascular, or intestinal lesions. Alternatively, a new transobturator approach has been proposed. Doctor Vincent Delmas, well-known anatomist and urologist, after studying 10 female subjects, presented a thorough study on the course of transobturator tape and identified the anatomical problems encountered. The author concluded that from an anatomical standpoint, the transobturator tape is much safer than any retropubic tape techniques. I strongly recommend carefully read of this paper for all surgeons involved with urethropexy for treating stress urinary incontinence.

Dr. Francisco J.B. Sampaio
Full-Professor and Chair, Urogenital Research Unit
State University of Rio de Janeiro
Rio de Janeiro, Brazil

UROLOGICAL ONCOLOGY

Interobserver discrepancy using the 1998 World Health Organization/International Society of Urologic Pathology classification of urothelial neoplasms: practical choices for patient care

Murphy WM, Takezawa K, Maruniak NA
Department of Pathology, University of Florida College of Medicine, Gainesville, Florida, USA
J Urol. 2002; 168: 968-72

Purpose: Morphological classifications designed by experts to stratify neoplasms according to biological potential must define categories that are reproducible among practitioners or the schemes actually create the

heterogeneous populations that they seek to avoid. The application of the 1998 World Health Organization/ International Society of Urologic Pathology scheme for urothelial neoplasms was studied in a community practice setting. We documented interpretive discrepancies for each category of neoplasm and determined whether a period of pathologist education may have a positive effect on the frequency of discrepant interpretations. The results suggest that patients may benefit from modifying the classification system.

Materials and Methods: A consecutive series of specimens was divided into learning and study sets that were each independently examined by 3 pathologists. Specimens in the learning set were interpreted without previous structured education, while those in the study set were interpreted immediately after intensive education. Interpretations for each specimen were compared and interpretive discrepancies were analyzed.

Results: Case distribution after education was similar among the pathologists but interpretations for any particular specimen often differed. The level of interpretive discrepancies varied according to the morphological similarity among categories in the classification scheme and was not necessarily decreased by education. When pathologists were required to discriminate between papillary urothelial neoplasm of low malignant potential and low grade carcinoma, the discrepancies were 50% after education compared with 39% before education. In contrast, there were no discrepancies when the discrimination was between papillary urothelial neoplasm of low malignant potential and high grade carcinoma or carcinoma in situ. Eliminating categories with poor reproducibility markedly improved the likelihood of unanimous agreement among practitioners but a probably irreducible level of 10% discrepancies remained.

Conclusions: The 1998 World Health Organization/International Society of Urologic Pathology classification of urothelial neoplasms requires certain discriminations that cannot be reliably made by practitioners. Modifying the scheme to create categories of low grade neoplasm and high grade carcinoma would markedly increase its practical value to patients without significantly altering patient care.

Editorial Comment

In 1998, the WHO/International Society of Urological Pathology decided upon a new classification of urothelial neoplasms. Upon reviewing the literature on this subject, I came upon this reference, which gives some insight into the difficulties with classification systems of urothelial neoplasms in general, and with the new classification in special.

After education of pathologists, general agreement on low malignant potential papillary urothelial neoplasms was achieved in 39%, on low grade carcinomas in 23%, whereas agreement was achieved on high grade carcinomas and carcinoma in situ in 80% and 77%, respectively.

For the urologist this means that the information on dangerous carcinomas is quite reliable whereas it is rather unreliable in more benign disease – these however make more than 70% of our cases.

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

Intermediate term biochemical progression rates after radical prostatectomy and radiotherapy in patients with screen detected prostate cancer

Krygiel JM, Smith DS, Homan SM, Sumner W 2nd, Nease RF Jr, Brownson RC, Catalona WJ
Waterman Research Solutions, St. Louis, Missouri, USA
J Urol. 2005; 174: 126-30

Purpose: We compared biochemical progression rates measured by increasing prostate specific antigen (PSA) levels using a standard definition of biochemical recurrence among patients with screen detected prostate cancer treated with radical prostatectomy (RP) or radiotherapy (RT).

Materials and Methods: A total of 1,939 patients diagnosed with clinically localized prostate cancer in a community based screening study from 1989 to 1998, followed through 2001, were treated with RP or RT and agreed to enroll in a followup study. This prospective cohort study (median followup 62 months, range 0.2 to 141) used adjusted Cox proportional hazards models to examine time to progression. Selection bias was addressed with propensity scores. Biochemical evidence of cancer progression was defined as PSA greater than 0.2 ng/mL in patients who underwent RP and 3 consecutive PSA increases as recommended by the American Society for Therapeutic Radiology and Oncology criteria for radiotherapy.

Results: Of the patients 17% had evidence of cancer progression. The percentage with progression-free survival at 5 and 9 years for RP was 84% and 76%, respectively, and for RT 80% and 70%, respectively. Cox proportional hazards models produced a hazard ratio of 1.63 (95% CI, 1.12, 2.38) for RT compared with RP, adjusting for clinical stage, Gleason grade, preoperative PSA, biopsy age, treatment year and propensity for treatment type.

Conclusions: With intermediate term followup, patients treated with RT were more likely to have cancer progression than with RP adjusting for demographics, clinical factors, selection bias and treatment year.

Editorial Comment

This paper is an example on the importance to read critically to cautiously interpret any comparison between two therapeutic options.

Here, the outcomes of a large cohort of patients (1,939 patients) treated with radical prostatectomy (RP) or radiation therapy (RT) was compared retrospectively. No information on radiation technique or doses applied are given. On first view, RP fared better than RT. However, no information on “censored” patients is given, and with 282 patiens in the RT group vs 1657 in the RP group it is tempting to assume that after 60 months no meaningful comparison is possible.

What remains is that with either therapeutic possibility, the progression-free outcome is not better than 70% after 10 years.

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

Bacillus Calmette-Guerin versus chemotherapy for the intravesical treatment of patients with carcinoma in situ of the bladder: a meta-analysis of the published results of randomized clinical trials

Sylvester RJ, van der Meijden AP, Witjes JA, Kurth K
European Organization for the Research and Treatment of Cancer Data Center, Brussels, Belgium
J Urol. 2005; 174: 86-91; discussion 91-2

Purpose: We determined the short-term and long-term efficacy of bacillus Calmette-Guerin (BCG) and chemotherapy in the treatment of patients with carcinoma in situ (CIS).

Materials and Methods: A meta-analysis was performed on published results of randomized clinical trials comparing intravesical BCG to intravesical chemotherapy.

Results: Nine randomized trials including 700 patients with CIS compared BCG to either mitomycin C (MMC), epirubicin, adriamycin, or sequential MMC/adriamycin. Of 298 patients on BCG 203 (68.1%) had a complete response compared with 158 of 307 patients on chemotherapy (51.5%), a reduction of 47% in the odds of nonresponse on BCG (OR 0.53, p = 0.0002). Based on a median followup of 3.6 years, 161 of 345 patients on BCG (46.7%) had no evidence of disease compared with 93 of 355 patients on chemotherapy (26.2%), a reduction of 59% in the odds of treatment failure on BCG (OR 0.41, p < 0.0001). Although the long-term benefit of BCG was smaller in trials with MMC, BCG was superior to MMC in trials with maintenance BCG (OR 0.57, p = 0.04). The reduction of 26% in the risk of progression on BCG (p = 0.20) is consistent with the reduction of 27% (p = 0.001) previously reported in a larger superficial bladder cancer meta-analysis.

Conclusions: Intravesical BCG significantly reduces the risk of short and long-term treatment failure compared with intravesical chemotherapy. Therefore, it is considered to be the intravesical agent of choice in the treatment of CIS.

Editorial Comment

Sylvester and coworkers from the EORTC present another extraordinary paper on patients outcomes with superficial bladder cancer. This metaanalytic calculation of all published data on intravesical treatment of CIS reveals that chemotherapy is clearly inferior to immunotherapy with BCG with regard to recurrence, and, more importantly, with regard to progression.

Clearly, these high-risk patients deserve maintenance BCG therapy. If recurrence, or worse, progression occurs while under maintenance therapy, immediate radical cystectomy is justified.

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

FEMALE UROLOGY

What is the value of cystoscopy with hydrodistension for interstitial cystitis?

Ottem DP, Teichman JM
Division of Urology, Providence Health Care, University of British Columbia, Vancouver, British Columbia, Canada
Urology. 2005; 66: 494-9

Objectives: To determine the utility of cystoscopy with hydrodistension for the diagnosis and therapy of interstitial cystitis. Cystoscopy with hydrodistension is the most commonly performed diagnostic test and procedure in patients with interstitial cystitis.

Methods: Eighty-four consecutive patients with interstitial cystitis (68 women and 16 men) were studied retrospectively. The patients underwent history and physical examination, urinalysis, and urine culture and filled in a voiding diary and pain urgency frequency questionnaire. Cystoscopy with hydrodistension was performed in 47 patients. Patients who had and had not undergone hydrodistension were compared. Patients who underwent hydrodistension were characterized and followed up for response.

Results: The mean patient age was 41 years, mean daily voided volume was 98 mL, mean number of nocturnal episodes was 3, and pain urgency frequency score was 21. Comparing patients undergoing versus not undergoing hydrodistension, pain was reported in 61% versus 25% (P = 0.03), vaginal pain in 62% versus 32%