In the prostate-specific antigen era, after radical prostatectomy, men are more likely to die of something else other than prostate cancer.

Objective: To determine long-term prostate cancer-specific mortality (PCSM) after radical prostatectomy in the prostate-specific antigen (PSA) era.

Design: Multi-institutional cohort study.

Participants: 12,677 men treated with radical prostatectomy from 1987 to 2005.

Methods: Risk of PCSM was calculated across all men and for different pre-operative risk groups. A nomogram was developed to predict 10- and 15-year PCSM after surgery based on clinical parameters using a modeling cohort and validated on an external cohort.

Results: 15-year PCSM was 12% compared to all-cause mortality of 38%. PCSM was as low as 5% in men at lowest risk based on a previously published nomogram for biochemical recurrence; it was as high as 38% in men in the highest-risk group. For contemporary patients, only 4% have a 15-year PCSM rate that >5% after radical prostatectomy.

Conclusions: 15-year PCSM is relatively low compared to all-cause mortality after radical prostatectomy in the PSA era.

Reviewer's Comments: The advent of the PSA era has brought with it a series of controversial issues. Is screening with PSA useful, how should we treat men with screen-detected prostate cancer, are we over-treating men who are diagnosed with prostate cancer, and how can we predict who will benefit the most from treatment? Studies have been hampered, in part, by the long natural history of the disease. As a result, the most important oncologic outcome, whether or not a patient dies of prostate cancer, is rarely studied directly. This study is important because it has a long-term outcome of 15 years, and specifically addresses the issue of death due to prostate cancer. Thus, it gives a much more relevant end point for patients to think about when deciding on whether to proceed to surgery or not. Given the low risk of PCSM, it also points out the need for better markers of this aggressive disease, so we can better tailor therapy to those at highest risk. At first glance, one might read this article and conclude this proves we are over treating prostate cancer. That may or may not be true, but this cohort study cannot determine what would have happened to these men had they not had surgery. Nor can it be used to determine the 15-year PCSM in men treated by means other than surgery. It does provide a tool for future trial design to answer these important questions and as a counseling tool for patients in the clinic. (Reviewer-Peter Clark, MD).

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Keywords: Prostate Cancer, Radical Prostatectomy, Specific Mortality

Print Tag: Refer to original journal article
While African Americans overall still tend to have higher-risk prostate cancer, the gap relative to Caucasian men has narrowed.

**Objective:** To compare the risk profile of men with prostate cancer in a contemporary cohort to cohorts earlier in the prostate-specific antigen (PSA) era.

**Methods:** The risk profile of 82,541 men with prostate cancer from the Surveillance, Epidemiology, and End Results Program (SEER) diagnosed from 2004 to 2005 were generated and then compared to cohorts from 1988 to 1989 and 1996 to 1997.

**Results:** The majority of men (94%) diagnosed from 2004 to 2005 had localized disease (stage T1-T2) with a median PSA of 6.7 ng/mL. African American men, on average, had a higher PSA at diagnosis (median 7.4 ng/mL) versus Caucasian men (median 6.6 ng/mL). Compared to a cohort from 1988 to 1989, average age at diagnosis decreased from 72.2 to 67.2 years. African American men were diagnosed at a younger age than Caucasian men (64.7 versus 67.5 years, respectively). The rate of high-stage disease (T3-T4) decreased from 52.7 to 7.9 per 100,000 among Caucasian men and from 90.9 to 13.3 per 100,000 among African American men.

**Conclusions:** Men were diagnosed with prostate cancer at a younger age and with lower stage disease in 2004 to 2005 compared to earlier cohorts. Although African American men continue to have proportionally higher-risk disease, the racial gap has substantially narrowed.

**Reviewer's Comments:** It is known that African American men tend to have higher-risk prostate cancer than Caucasian men at diagnosis. The reason behind this is debated. One theory suggests genetics plays a role; however, it has also been argued that other socioeconomic factors such as access to health care have an important role to play. This study suggests that perhaps both factors may be at work. With the introduction of PSA screening, men are now being diagnosed with prostate cancer at younger ages and with lower-stage disease. For African American men in particular, the drop in high-stage disease is dramatic and the apparent racial gap has shrunk substantially. Furthermore, African American men are a being diagnosed with prostate cancer at a younger age. This suggests that perhaps efforts to screen African American men at younger ages have been partially successful. Nevertheless, there remains a racial disparity in prostate cancer risk. Does this mean the remaining differences are due to the influence of biologic variation, or is it due to residual socioeconomic factors? This study cannot directly address that specific question. It also remains to be seen if the decreases in high-stage disease across all men will translate into better survival. Nevertheless, this study suggests that at least some progress is being made in addressing racial disparities in prostate cancer risk in this country. (Reviewer-Peter Clark, MD).

© 2009, Oakstone Medical Publishing

Keywords: Prostate Cancer, Risk Profile, Ethnicity

Print Tag: Refer to original journal article
Ureteroscopy is a good alternative for patients with large renal stones who would prefer to minimize risk even if it means two procedures instead of one.

**Background:** Patients with large renal calculi desire a less invasive approach than percutaneous nephrolithotomy (PCNL).

**Objective:** To evaluate the efficacy of retrograde ureteroscopy for renal stones >2.5 cm.

**Design:** Retrospective chart review (2004 to 2008).

**Participants:** 22 patients with mean stone size of 3 cm.

**Methods:** Flexible ureteroscopy was performed using a 13F/15F ureteral access sheath and a Storz Flex-X ureteroscope. Abdominal x-ray was utilized for follow-up at 2 weeks and success defined as fragments <2mm in size. Patients undergoing staged ureteroscopy underwent their second procedure after 1 to 2 weeks.

**Results:** Average number of procedures was 1.8, with 64% of patients requiring 2 surgeries. Success rate was 91%, with 2 failures associated with large lower pole stone burdens. Average operating time was 72 minutes. Overall complication rate was 13%, including 1 case of bacteremia and 1 case of subcapsular hematoma.

**Conclusions:** Planned staged ureteroscopy is a good alternative to PCNL, though significant lower pole stone burden may be a poor prognostic factor.

**Reviewer's Comments:** The authors state that all patients with stones >2.0 cm were offered a retrograde URS versus a PCNL. It would be helpful to know what percentage of patients chose this less invasive approach. What characteristics determine which procedure the patients chose—stone size, stone location, comorbidities? Or are decisions driven by socio-economic variables (ie primary caregiver/wage-earner) or risk-aversion? The authors report the use of hand-irrigation through a 5-Fr open-ended catheter placed in the upper pole through the access sheath to facilitate clearance of fragments. It would be useful to know if this irrigation technique was associated with a higher risk of complications; indeed, subcapsular hematoma and bacteremia might be more likely in the face of forceful irrigation. It would be useful to know how many procedures were terminated early due to poor visibility secondary to bleeding or fragment load. As such, this study establishes the value of retrograde ureteroscopy for large stones. It arms the patient and physician with an alternative - are two ureteroscopies better than one PCNL? The answer lies with the patient. (Reviewer-Manoj Monga, MD).

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Keywords: Calculi, Ureteroscopy

Print Tag: Refer to original journal article
Ultrasonography Effective for Post-Op Evaluation After Ureteroscopy

Use of Renal Ultrasound to Detect Hydronephrosis After Ureteroscopy.
Manger JP, Mendoza PJ, et al:

J Endourol 2009; 23 (September): 1399-1402

Ultrasonography may be warranted in the postoperative setting to evaluate for silent hydronephrosis.

**Objective:** To evaluate the role of ultrasonography as a screen for silent obstruction after ureteroscopy.

**Design:** Retrospective chart review.

**Participants:** 438 patients undergoing retrograde ureteroscopy.

**Methods:** Ultrasonography was performed 4 weeks after the procedure or 4 weeks after stent removal if a stent was left postoperatively.

**Interventions:** Ureteroscopy was performed with a 7F semirigid ureteroscope and/or a 6.9F or 7.5F flexible ureteroscope. When needed, a 28 cm ureteral access sheath was used in women, and 35 cm ureteral access sheath used in men. Ureteral stents, if placed, were removed after 1 to 2 weeks.

**Results:** Only 66% of patients returned for their follow-up ultrasonography. Hydronephrosis was detected in 9% of patients. Only 6% of asymptomatic patients had hydronephrosis and 1.2% of asymptomatic patients required intervention for hydronephrosis. Of patients, 50% were symptomatic and surgery was required for 38% of patients with symptomatic hydronephrosis. Of patients undergoing surgery (3%), 7 of 8 had residual ureteral stones while 1 patient developed a ureteral stricture.

**Conclusions:** Ultrasonography may be warranted in the postoperative setting to evaluate for silent hydronephrosis.

**Reviewer's Comments:** The authors excluded patients who underwent alternative postoperative imaging (CT scan, antegrade nephrostogram); it would have been useful to report why these patients underwent imaging (eg, symptoms) and what the findings were. The authors did not evaluate intraoperative factors that could help predict those who may benefit from postoperative imaging (eg, impacted stones, ureteral perforation, need for balloon dilation). It is possible that a more selective approach to postoperative imaging could be considered. As one-third of patients with hydronephrosis had subsequent spontaneous resolution, it is possible that delaying ultrasonography 6 to 8 weeks is warranted. The degree and chronicity of preoperative hydronephrosis might guide the need for nuclear renography instead of ultrasonography to define obstruction as opposed to calycectasis. This issue is not addressed by the authors, though they note that 15% of patients with hydronephrosis on ultrasonography were determined on follow-up to have chronic dilation as opposed to obstruction. (Reviewer-Manoj Monga, MD).

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Keywords: Ureteroscopy, Ultrasound, Hydronephrosis

Print Tag: Refer to original journal article
Objective: To assess postoperative pain, length of hospitalization, and outcome in a contemporary series of open "minimally invasive" ureteral reimplantations.

Methods: 100 consecutive open ureteral reimplantations were evaluated. Age, weight, gender, grade of reflux, year of surgery, technique, and operative time were correlated with length of stay and pain score. Morphine was used in 8 patients early in the series. Ketorolac, acetaminophen with codeine, and local bupivacaine were routinely used throughout the study. A small, 4 cm incision was utilized in all. Of patients, 60 underwent bilateral and 40 underwent unilateral repairs. Patients underwent both open intravesical (97% of bilateral) and extravesical (78% of unilateral) techniques. No patients received caudal or spinal analgesia.

Results: Pain score was significantly greater in those operated on early in the series which was felt to reflect the routine use of morphine in this group. In multiple regression analysis, several factors were associated with a greater length of stay: earlier date of surgery, lower weight, greater operative time, and an intravesical approach. Recurrent reflux was detected in 1 patient with asymptomatic grade 1 reflux after repair of grade 5 reflux. De novo contralateral reflux was detected in 1 patient with febrile urinary tract infection after repair.

Conclusions: Open ureteral reimplantation can be performed in a minimally invasive manner with excellent results. Ketorolac and oral analgesics should be the mainstay of postoperative pain control, with or without caudal analgesia. The article emphasizes the evolution of terminology, with "minimally invasive" growing to encompass open, endoscopic, and laparoscopic techniques with a focus more on outcomes than the approach. (Reviewer-John Gatti, MD).

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Keywords: Ureteral Reimplantations, Minimally Invasive Surgery, Morphine

Print Tag: Refer to original journal article
Anorectal Malformations Signal Need for Urodynamic Assessment

Impact of Spinal Cord Malformation on Bladder Function in Children With Anorectal Malformations.

Borg H, Holmdahl G, et al:

J Pediatr Surg 2009; 44 (September): 1778-1785

Spinal ultrasound and perineal inspection should be used to screen for occult neurogenic bladder dysfunction in children with anorectal malformations.

**Objective:** To evaluate factors associated with neurogenic bladder (NGB) in children born with high anorectal malformations (ARM) to determine the need for urodynamic evaluation.

**Design:** Prospective study.

**Participants:** 37 patients (21 boys, 16 girls) with high ARMs.

**Methods:** Spinal evaluation included plain film and ultrasound, followed by MRI in those with abnormal ultrasound, urodynamics, or cloaca. All patients underwent urodynamics before and after posterior sagittal anorectoplasty (PSARP).

**Results:** Neurogenic bladder dysfunction (NBD) was found in 9 (25%) patients. In only 1 case (female with cloaca), did NGB develop after reconstruction; in all others it was present before and after surgery. Nearly all children with NGB had partial sacral agenesis. Boys with an abnormal appearance of the perineum were at high risk for NGB and spinal cord malformation. No child was found to have inherent NGB in the setting of a normal spinal cord.

**Conclusions:** PSARP carries a low risk of iatrogenic denervation. Spinal ultrasound and perineal inspection should be used to screen for occult NBD in children with ARM. In the setting of spinal cord abnormalities or suggestion of NGB, urodynamics are warranted.

**Reviewer's Comments:** This study is impressive in that this select group of children with high anorectal malformations were extensively evaluated in a prospective manner to identify risk factors for neurogenic bladder. The authors identified a close correlation between NGB and underlying spinal cord anomaly (predominantly spinal cord regression or tethering). In no cases was there inherent NGB without underlying cord anomaly. There was 1 case of cloaca with a long common channel that developed NGB postoperatively, but all other cases of NGB were present before PSARP. This is reassuring that PSARP is safe, but that the incidence of inherent NGB in this population is substantial. The authors offer practical advice with regard to screening for NGB. The presence of spinal anomalies or an abnormal perineum, especially in boys, warrants urodynamic evaluation. (Reviewer-John Gatti, MD).

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**Keywords:** Anorectal Malformation, Urodynamics, Spinal Cord Malformation, Bladder Function

Print Tag: Refer to original journal article
**Objective:** To assess patterns in the surgical treatment of women undergoing stress urinary incontinence interventions from 1992 to 2001 from a database project utilizing Medicare and other databases.

**Design/Methods:** This is an assessment using the Urologic Diseases in America Project. The project utilized a national database of Medicare beneficiaries age ≥65 years and data were obtained from both the carrier and outpatient files at 3-year sequences between 1992 and 2001. All women with a diagnosis of urinary incontinence were identified and surgical procedures performed. Those individuals were tracked to assess patterns of care over a 10-year period in this population. Methods of database query were established based upon access to files. Assessment was based upon the 5% analysis.

**Results:** Over the period of evaluation, the number of intervention for incontinence increased from 18,820 to 32,480. The authors attributed much of this increase to growth in the Medicare population. Not surprisingly, procedures identified changed in frequency, with needle suspension being the most frequent of the procedures identified between 1992 and 1995. Collagen injections became the most commonly performed procedure by 1998. There was a rapid increase in both slings in 1995 and 2001, with overall sling numbers rising from an initial number of 640 in 1992 to 17,680 in 2001. Needle suspensions, although markedly decreased, did continue to be performed in 2001 with only 1400 as compared to 7840 in 1992. The Burch retropubic urethropexy decreased from 7080 in 1992 to 4220 in 2001.

**Conclusions:** This study demonstrates changing trends in the management of urinary stress incontinence over this time frame. These trends are representative of several factors including the increasing population of Medicare beneficiaries. The authors also attributed some of increase to increasing awareness of urinary incontinence. Various procedures have increased in popularity and also decreased, dependent upon experience. The authors posit that there is a lack of evidence based recommendation regarding the ideal procedure for the populations to be used. The desire for less invasive, less morbid continues to affect the various types of procedures performed. The authors anticipate that subsequent analysis of Medicare databases will show further changes in the overall use of the sling as primary intervention. Injection procedures remain an important aspect of care in the management of urinary stress incontinence based upon Medicare databases.

**Reviewer’s Comments:** Despite fluxes in the overall numbers of procedures being performed, the ultimate collagen injection procedures still includes over 6000 procedures as of the 2001 database capture. (Reviewer-Roger Dmochowski, MD).

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Keywords: Surgical Trends, Urinary Stress Incontinence, Female Gender

Print Tag: Refer to original journal article
Tibial nerve stimulation showed significant improvements as compared to oral pharmacotherapy for patients with overactive bladder.

Objective: To evaluate percutaneous peripheral tibial stimulation for overactivity in patients with overactive bladder.

Design: Randomized, multicenter controlled study.

Methods: Patients with typical overactive bladder symptoms who were undergoing either treatment with percutaneous tibial nerve stimulation or extended-release tolterodine for 3 months of therapy were evaluated. It was a 1:1 randomization study. Voiding diaries, as well as overactive bladder questionnaires were used at baseline and at end of therapy to compare overall symptoms after interventions. Results of treatment were measured in terms of reduction in urinary frequency on a 24-hour basis, urinary urge incontinence episodes on a 24-hour basis, urgency episodes, as well as quality-of-life indices. There was also a global response questionnaire completed by subjects and investigators at 12 weeks of therapy. Percutaneous tibial stimulation was done in standard fashion as previously described, using peripheral nerve stimulation. Pharmacotherapy was done with extended-release tolterodine.

Results: Overall, global response instruments showed significant improvement in percutaneous tibial stimulation averaging 79.5% reporting cure or improvement as compared to 54.8% of patients on tolterodine. This was highly statistically significant. Diary-based variables also showed improvements in urge incontinence, urge episodes, volume voided, and voids per day that were more significant with tibial stimulation as compared to extended-release tolterodine. Rather statistically significant decreases were noted across all overactive bladder parameters except for volume voided. There were no serious adverse events across either group.

Conclusions: In this trial, tibial nerve stimulation was safe and generated statistically significant improvements in patients.

Reviewer's Comments: Percutaneous tibial nerve stimulation was more effective than oral drug therapy in this trial in using both objective and subjective measures. There was also significant objective benefit with this as compared to oral pharmacotherapy, and the authors felt that this could be representative of an alternative therapy for overactive bladder. (Reviewer-Roger Dmochowski, MD).

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Keywords: Electric Stimulation Therapy, Tibial Nerve, Tolterodine, Urinary Incontinence

Print Tag: Refer to original journal article
Erectile dysfunction has a greater influence on global sexual bother than either decreased libido or ejaculatory problems, although erectile dysfunction is less common than libido problems.

**Background:** Male sexual dysfunction is a well-known complication of diabetes (DM). Most epidemiologic studies of male erectile dysfunction (ED), particularly those who have DM, have not comprehensively assessed other domains of sexual function beyond the erectile function component.

**Objective:** To determine the prevalence of erectile, orgasmic, ejaculatory, libido, and desire dysfunction in a cohort of men with type 1 DM.

**Methods:** Data were evaluated from men participating in the UroEDIC study, which was a cross-sectional ancillary study of The Diabetes Control and Complications Trial (DCCT) and Epidemiology of Diabetes Intervention and Complication (EDIC) Study. The DCCT randomly assigned 761 males with type 1 DM to intensive or conventional therapy, treating them for a mean of 6.5 years from 1983 to 1993. At the closeout of the DCCT in 1994, of the surviving 746 men still enrolled, 720 elected to participate in the EDIC follow-up study. After 10 years, 713 men were still active in the trial, and 591 (83%) agreed to participate in UroEDIC. Of these, 571 men provided data on erectile function and comprised the study population. The DCCT intervention trial examined the intensive treatment of DM versus more community-standard conventional therapy.

**Results:** The majority of subjects (78%) were aged >40 years with most of these aged 40 to 49 years. Mean duration of DM was 22.1 years, and the time weighted mean hemoglobin A1c level for the cohort over the course of the DCCT/EDIC studies was 8.07%. Mean score of the International Index of Erectile Dysfunction (IIEF) domains were 21.3 in the erectile function domain. Of participants, 34% reported an IIEF from 0 to 20 consistent with ED, 55% reported decreased desire, and 20% reported abnormal ejaculatory function. In the erectile domain, the item that queries the subject to his rate of confidence in his ability to get and keep an erection correlated very highly with the degree of bother in the erectile domain. The erectile confidence item correlated most closely with global sexual bother.

**Conclusions:** Sexual dysfunction is common in young men with type 1 DM; decreased libido (55%) is more common than ED (34%) or orgasmic dysfunction (20%).

**Reviewer's Comments:** The present study does not include any information on underlying hypogonadism, and offers little information on severity. Decreased libido, orgasmic dysfunction, and ED are all common in men with type 1 DM. Decreased libido is the most common form of sexual dysfunction. ED, however, has a greater impact on global sexual bother than the other items. (Reviewer-Kevin McVary, MD).

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Keywords: Diabetes, Erectile Function, Decreased Libido, Orgasmic Dysfunction

Print Tag: Refer to original journal article
Conservative Vs Surgical Treatment of Penile Fracture

Seventeen Years' Experience of Penile Fracture: Conservative Vs. Surgical Treatment.
Yapanoglu T, Aksoy Y, et al:
J Sex Med 2009; 6 (July): 2058-2063

Penile fractures must be repaired immediately or delayed emergent surgery appears the most effective approach.

**Background:** Penile fracture is a rare, underreported, and crucial urologic emergency. The only recommended imaging modality used is retrograde urethrography, simply for evaluating concomitant urethral tears at the time of fracture.

**Objectives:** To report the experience of 42 cases of penile fracture treated over 17 years and to evaluate diagnostic and therapeutic options.

**Design/ Participants:** 42 patients with penile fractures were evaluated in this retrospective study between 1991 and 2008.

**Methods:** Patients were divided into a smaller group of 5 (11.9%) men who underwent conservative treatment, while group 2 was larger with 37 (88.1%) men who underwent surgical correction.

**Results:** Patients were aged 21 to 56 years. Etiology was: 15 (35.7%) by straightening or bending the penis by hand; 13 (30.9%) during intercourse; 9 (21.4%) falling from a bed; 4 (9.5%) due to slamming of a door; 1 (2.3%) by a kick from a horse. Diagnosis was established by history and physical examination alone. Conservative treatment involved catheter use, suprapubic diversion, icepacks, oral medications, and anti-androgens. Median time from injury to surgery was 6 hours, and tears in the corpora cavernosa ranged from 0.8 to 2.8 cm, with an average of 1.8 cm. Of patients, 37 (88.1%) presented with unilateral lesions. Average duration of hospital stay in the surgical group was 3.0 days and 8.6 days for the conservative group. Of the conservative group, 80% suffered complications such as wound infection, painful erection, penile nodules, curvature and erectile dysfunction. The International Index of Erectile Function scores in the conservative group deteriorated over a 6-month period. The most common complication (10.8%) in the surgical group was painful erections. None had infection, curvature, nodules or erectile dysfunction.

**Reviewer's Comments:** Urethral injury may occur during penile fracture, as reported in 38% of cases. This was not the case in this series. The diagnosis is typically made by clinical history and exam; additional imaging studies have little to offer. Conservative treatment in this series led to complications, including pain, curvature and erectile dysfunction. Complications from conservative treatment persist beyond month 18. In the opinion of the authors, conservative treatment is more invasive than surgical treatment. Results of surgical treatment are excellent and complications rare. The authors conclude that fractures must be repaired immediately, or delayed emergent surgery appears the most effective approach. (Reviewer-Kevin McVary, MD).

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Keywords: Penile Fracture, Erectile Dysfunction, Treatment

Print Tag: Refer to original journal article
Long-term zinc intake may increase the risk of prostate cancer and adds to the growing body of evidence that zinc supplementation is not good for the prostate.

**Objective:** To determine the impact of multiple dietary supplements on prostate cancer risk.

**Design:** Hospital-based, case-control surveillance study. Methods: Data were taken from U.S. centers in Baltimore, Boston, New York, and Philadelphia where 1706 prostate cancer cases were matched to 2404 controls. Mean age of the cases and controls was 62 and 59 years, respectively. Cases were more educated, more likely to have a family history of prostate cancer, and less likely to smoke or be obese.

**Results:** Men who used zinc for ≥10 years either in a multivitamin or as an individual supplement had 2 times the risk of being diagnosed with prostate cancer. Men using other dietary supplements such as beta-carotene, folate, multivitamins, and selenium had no significant increase or decrease in cancer risk, but long-term use of any of these supplements were still associated with a non-significant increase in the risk of prostate cancer.

**Conclusion:** Long-term zinc intake may increase the risk of prostate cancer and adds to the growing body of evidence that zinc supplementation is not good for the prostate.

**Reviewer’s Comments:** Wait a micro-second! When I was reading alternative medicine books in the 80s, 90s, and even now, they told me that zinc is good for the prostate. In fact, these bone-headed authors reported that autopsy studies of men with prostate cancer demonstrated low levels of zinc compared to men without cancer, so of course this was enough of a reason to supplement with zinc. In reality, there was never any good evidence to support high levels of zinc intake for prostate health, and several studies in the 70s and beyond actually suggested that high-doses of zinc could increase levels of bad-cholesterol (LDL) and compromise immune function. Recently, the Food and Drug Administration warned of high doses of zinc temporarily or permanently impacting an individual’s sense of taste and/or smell. Another analysis from a large randomized trial found that high-dose zinc increased the risk of numerous urological conditions including benign prostatic hyperplasia, stones, and urinary tract infection; furthermore, laboratory studies suggest that zinc reduces the efficacy of bisphosphonate drugs. In Canada, zinc supplements are no longer allowed to contain more than 40 mg of zinc per pill because of all this negative data! (Reviewer-Mark Moyad, MD, MPH).

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Keywords: Vitamins, Minerals, Prostate Cancer

Print Tag: Refer to original journal article
Denosumab May Help BMD in Prostate Cancer Patients

Denosumab in Men Receiving Androgen-Deprivation Therapy for Prostate Cancer.
Smith MR, Egerdie B, et al:


Denosumab demonstrated an increased BMD at all sites and a reduction in the incidence of new vertebral fractures among men receiving androgen-deprivation therapy for non-metastatic prostate cancer.

**Objective:** To determine the impact of denosumab, a fully human monoclonal antibody against a receptor activated ligand that otherwise can accelerate bone loss.

**Design/Participants:** Randomized double-blind study of 734 non-metastatic patients.

**Methods:** Participants were divided into groups allocated to receive 60 mg of denosumab subcutaneously every 6 months or placebo. Primary end point was percent change in bone mineral density (BMD) at the lumbar spine at 24 months. Secondary end points included percent change in BMD at the hip and at all sites at 36 months and incidence of new vertebral fractures.

**Results:** Mean age was 75 years. At 24 months, the BMD of spine increased significantly by 5.6% in the denosumab group compared to a decrease of 1.0% in the placebo group ($P<0.001$). The denosumab group had significant increases in BMD at all measured sites and a significant reduction in vertebral fractures at 36 months ($P=0.006$).

**Conclusions:** Denosumab demonstrated an increased BMD at all sites and a reduction in the incidence of new vertebral fractures among men receiving androgen-deprivation therapy for non-metastatic prostate cancer.

**Reviewer's Comments:** Hold that injection for a second! First, the placebo group experienced a 1% reduction in spine BMD at 2 years, which is little to nothing when looking at the primary end point despite the significant difference. I have been told for years, by some "experts", that men can lose 5% or more of spine BMD annually when on ADT. Really?! Also, the placebo group took calcium and low-dose vitamin D ($\geq 400$ IU) and their vitamin D level at baseline was not even normal but actually insufficient. The placebo group also had a greater number of patients with a history of vertebral fracture at baseline (2.6% more) and also a higher percentage of osteoporotic fracture at baseline (4.5%). The actual incidence of new vertebral fracture was 1.5% with denosumab and 3.9% with placebo, which is significant but only represents a 2.4% difference at 3 years on a secondary end point with a questionable placebo intervention and group. There was no significant difference between fractures at any site (combined secondary end point) or time to first fracture. There was a 40% drop-out rate in both groups, and finally, there were a higher number of cataracts in the drug group compared to the placebo, but apparently this was not related to the drug. There is no doubt that I am excited about the potential of denosumab in some prostate cancer patients, but my excitement dissipates slightly for multiple reasons including the minimal 1% loss of spinal bone mineral density in the placebo group. I wonder how much better the placebo would have done with resistance exercise and higher doses of vitamin D. (Reviewer-Mark Moyad, MD, MPH).

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Keywords: Prostate Cancer, Denosumab, Androgen-Deprivation Therapy

Print Tag: Refer to original journal article
Blood Loss Associated With Worse Outcome After Prostatectomy

Estimated Blood Loss as a Predictor of PSA Recurrence After Radical Prostatectomy: Results From the SEARCH Database.
Lloyd JC, Bañez LL, et al:
BJU Int 2009; epub ahead of print (August 25):

Higher estimated blood loss is associated with higher recurrence risk after radical prostatectomy.

Objective: To test whether blood loss was associated with outcome after radical prostatectomy for prostate cancer.

Methods: Data were extracted from the Shared Equal-Access Regional Cancer Hospital (SEARCH) database. From available data, 1077 patients who underwent radical prostatectomy between 1998 and 2008 were analyzed. The association between estimated blood loss (EBL) and biochemical recurrence was tested, as well as if EBL was associated with worse cancer or higher positive margin rates.

Results: Increased EBL was associated with increased risk of biochemical recurrence after correcting for multiple other important clinical/pathologic features. Patients with an EBL from 1500 to 3499 mL were at increased risk versus those with EBL of <1500 mL. Those with the highest EBL, >3500 mL, were at the same risk as those with EBL <1500 mL. EBL was not associated with disease-related features such as Gleason score, stage, or preoperative prostate-specific antigen, and it was not associated with the probability of having a positive surgical margin.

Conclusions: Higher EBL is associated with a higher risk of biochemical recurrence after radical prostatectomy. The reason for this observation is currently unknown and needs further study.

Reviewer’s Comments: Every urologist recognizes intraoperative bleeding as a significant potential risk of radical prostatectomy. Even with the advent and dissemination of technology such as robotic assisted laparoscopic surgery there is still a risk for blood loss. Many may have assumed that while this may have short-term consequences, such as the need for transfusion, long-term consequences once the patient is over his operation are minimal. This study strongly suggests otherwise. Higher blood loss >1500 mL carries a significantly higher risk of subsequent biochemical recurrence. The reason for this association could be due to a number of factors that are discussed and analyzed within the paper. As it stands, data presented do not completely support any one theory. It is unfortunate that some of the questions that are raised by this paper cannot be directly answered with their data, since certain information is not available in the SEARCH database. For example, analyzing the data by individual surgeon, operative time, or actual transfusion would have potentially added to the study, but these data points are not available. Similarly, a detailed analysis of EBL and its relationship to postoperative continence and potency would be a logical next step. Nevertheless, this is a provocative study that warrants validation using other data sets. It also greatly stresses the importance of meticulous surgical technique, and perhaps suggests EBL should be a quality indicator for radical prostatectomy that impacts long-term outcome. (Reviewer-Peter Clark, MD).

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Keywords: Prostate Cancer, Estimated Blood Loss, Radical Prostatectomy

Print Tag: Refer to original journal article
Quality Of Life Similar For Radiation Therapy, Cryoablation

A Randomized Trial of External Beam Radiotherapy Versus Cryoablation in Patients With Localized Prostate Cancer.

Robinson JW, Donnelly BJ, et al:

Cancer 2009; epub ahead of print (August 18):

Long-term quality of life at 3 years is similar in men undergoing treatment with radiation therapy versus cryoablation except for worse sexual function with the latter.

Objective: To test any differences in health-related quality of life (HRQOL) in prostate cancer patients treated by external beam radiation (EBRT) or cryoablation.

Design: Single institution, prospective randomized study.

Participants: 244 men diagnosed with clinically localized prostate cancer.

Methods: Patients were randomized to either EBRT or cryoablation. Both groups received 3 to 6 months of androgen-deprivation therapy (ADT). Men completed 2 HRQOL instruments at baseline and at regular intervals, including at 3 months, and 3 years. Comparisons between EBRT and cryoablation were made for HRQOL at 3 months and 3 years.

Results: Both EBRT and cryoablation patients reported good HRQOL outcomes both short- and long-term versus baseline except for sexual function, which was significantly reduced in both groups. There were no compelling differences in HRQOL comparing EBRT versus cryoablation patients in any domain except for 2. Cryoablation patients tended to have worse urinary function at 3 months but recovered back to baseline by 3 years and both EBRT and cryoablation patients had worse sexual function compared to baseline but cryoablation patients did worse at both the short- and long-term time points.

Conclusions: There were no significant differences in long-term HRQOL comparing EBRT to cryoablation except for sexual function which was decreased in both groups compared to baseline but worse after cryoablation.

Reviewer's Comments: Once a patient is diagnosed with prostate cancer they must make the difficult choice on how to be treated. Multiple options are available, with relatively little level 1 survival data to guide their choice. Given this dilemma, many men may opt to gauge their choice largely on the differences in HRQOL between options. Up until now, very few trials were available to assess these potential differences, and even fewer that were prospective, randomized, and included baseline assessments. This trial is relatively unique in offering all these strengths when comparing EBRT to cryoablation. The trial is well designed, at least with respect to comparing the HRQOL outcomes reported here. Results support the conclusion that there is significant loss of sexual function with both modalities, but it is worse with cryoablation. This strongly suggests that in men where sexual function is a major priority, EBRT is likely a better alternative than cryoablation. It should be born in mind, however, that both groups in this trial received ADT for 3 to 6 months which could have obscured other HRQOL differences or exacerbated others. In addition, this trial cannot speak to either treatment compared to surgery, brachytherapy, or even other modalities of delivering EBRT such as intensity modulated radiation therapy. Much more work therefore needs to be done in this important field, but this study is a laudable start. (Reviewer-Peter Clark, MD).

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Keywords: Prostate Cancer, External Beam Radiation, Cryoablation, Health Related Quality Of Life.

Print Tag: Refer to original journal article
Simultaneous stone extraction does not impact negatively on the success of endopyelotomy.

Objective: To evaluate the impact of simultaneous stone extraction on efficacy of endopyelotomy (EP).
Design: Retrospective chart review.
Participants: 146 cases of EP either with (72%) or without (28%) simultaneous stone extraction.
Methods: Stones touching the ureteropelvic junction (UPJ) were excluded. Success was defined by intravenous pyelogram, CT, and/or nuclear renography. A minimum follow-up of one year was required.
Interventions: Patients underwent antegrade or retrograde endopyelotomy based on the amount of stone burden and patient preference. When needed, intracorporeal lithotripsy was performed by Holmium-YAG laser, pneumatic or ultrasonic lithotripsy.
Results: Average follow-up was >2 years. Success rates were 71% for patients undergoing endopyelotomy and 90% for patients undergoing simultaneous endopyelotomy and stone extraction. Severe/massive preoperative hydronephrosis was predictive of failure of endopyelotomy (3 times higher risk). Preoperative renal function was not predictive of success. The approach used (retrograde versus antegrade) did not impact success.
Conclusions: Simultaneous stone extraction does not impact negatively on the success of endopyelotomy.
Reviewer's Comments: Traditionally, a staged approach (stone extraction, re-evaluation, endopyelotomy) has been recommended for stones at the UPJ as it is difficult to establish the presence of a primary UPJ obstruction versus the possibility of secondary obstruction due to edema that will resolve following stone extraction. Indeed, such patients were excluded from analysis in this study. Concerns are raised with regards to the possibility of fragment migration through the endopyelotomy incision if the 2 procedures are performed simultaneously. Unfortunately, the authors did not compare success rates for those undergoing intracorporeal lithotripsy to those undergoing intact stone removal, nor do they correlate success with stone size. Similarly, the authors do not report the presence of residual fragments or fragments in the retroperitoneum on postoperative imaging. The study could be criticized due to the lack of standardization in preoperative and postoperative imaging. The authors do not discuss their preoperative imaging to assess for crossing vessels, and whether the identification of crossing vessels impacted their treatment algorithm. (Reviewer-Manoj Monga, MD).

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Keywords: Endopyelotomy, Nephrolithotomy, Outcomes

Print Tag: Refer to original journal article
New technology deserves careful scrutiny; this study supports the durability and clinical efficacy of digital cystoscopes.

**Background:** In vitro studies have demonstrated digital cystoscopes offer superior resolution, contrast discrimination, and red color differentiation. Does this translate to clinical superiority?

**Objective:** To compare optics, performance, and durability of digital and flexible cystoscopes.

**Design:** Prospective randomized clinical trial.

**Participants:** 13 staff urologists in an outpatient academic setting.

**Methods:** 2 fiberoptic cystoscopes (Gyrus-ACMI ACN-2, Olympus CYF-5) and two digital cystoscopes (Gyrus-ACMI ICN-0564, Olympus CYF-V2 EndoEYE) were tested. Subjective assessments of optics and function were recorded as were objective measures of scope deflection and need for repair. Sterilization was performed using Cidex.

**Interventions:** 1022 cystoscopies were performed.

**Results:** Only 2 repairs (one digital, one flexible) were required and were associated with improper handling. The digital scopes were subjectively rated superior for optics, deflection, retroflexion and overall performance by the surgeons.

**Conclusions:** Surgeons prefer digital cystoscopes based on subjective evaluation of optics and performance.

**Reviewer's Comments:** The randomization scheme for this study is unclear. The methods state that the staff urologists were randomly assigned to 1 of 4 cystoscopes. Did each urologist have an opportunity to use each scope? Were the patients randomized (superior study design) or were the urologists randomized? What was the randomization scheme - over two-thirds of procedures were performed using the digital scope, suggesting that either the randomization was not adhered to or the randomization scheme was not simple. Only 1 cystoscope of each type was tested--there may be variability in function and durability with a larger sample size. Though mean optical rankings were significantly greater for digitalscopes, one might question whether the differences (8.4 vs 7.8) have sufficient clinical significance to warrant the higher expense of digital technology. Cidex sterilization was utilized in this study--performance and durability deserves further evaluation with the more commonly employed automated Steris systems. The authors report a 32% decrease in deflection with an instrument in the working channel for the Gyrus-ACMI digital scope; though statistics are not reported, this has important clinical implications when compared to the 11% loss of deflection with the other scopes tested. (Reviewer-Manoj Monga, MD).

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Keywords: cystoscope, instrumentation, digital

Print Tag: Refer to original journal article
Minimally invasive renal procedures are technically challenging in small children but can be done safely and effectively.

**Objective:** To evaluate the use of minimally invasive procedures, namely pyeloplasty (P), heminephroureterectomy, and nephrectomy in infants <1 year of age.

**Design:** Retrospective review performed from 2002 to 2008. Participants: 67 children who met the inclusion criteria.

**Methods:** Of patients, 26 underwent pyeloplasty, 18 heminephroureterectomy, and 23 nephrectomy. Charts were reviewed with focus on technical aspects, surgical outcome, and complications.

**Results:** Mean patient weight was 6.4 kg, mean operating time was 113 minutes. All but 1 case was completed laparoscopically. One complication occurred involving an unrecognized bowel perforation during pyeloplasty which ultimately resulted in nephrectomy. Pyeloplasty cases were all noted to have improvement in hydronephrosis by ultrasound and tracer clearance on diuretic renal scan. Renal function in the pyeloplasty and heminephroureterectomy groups were comparable pre- and postoperatively.

**Conclusions:** Minimally invasive renal procedures are technically challenging in children <1 year old, but can be done safely and effectively in the hands of an experienced surgical team.

**Reviewer's Comments:** The authors present a substantial experience with laparoscopic renal surgery in infants. Overall, their outcomes were good, but substantial morbidity was associated with the unrecognized bowel perforation. This complication is particularly important to emphasize; it is relatively common in laparoscopy and working in the small confines of the infant peritoneum only accentuate this risk. Extra care must be taken to avoid injury at the time of port placement and inadvertent cauterization of adjacent bowel structures. As experience grows and techniques improve, laparoscopy will become more common in younger and younger children. This study emphasizes that these procedures can be accomplished with success, but are technically demanding and can be unforgiving. (Reviewer-John Gatti, MD).

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Keywords: Laparoscopy, Infant, Urinary Tract

Print Tag: Refer to original journal article
The injection of bulking agents is a successful and minimally invasive method of treatment for incontinent catheterizable stomas.

**Objective:** To assess the efficacy of submucosal injectable bulking agents for incontinence of catheterizable channels.

**Design:** Retrospective review.

**Methods:** Patients with a history of stomal incontinence after creation of a continent urinary channel (CUC) and/or antegrade continence enema stoma (ACE) were identified. Injection of bulking agents was performed at the level of the continence mechanism endoscopically. The injection material, volume injected, and number of procedures was considered.

**Results:** From 1996 to 2007, 164 stomas were considered and 8 patients underwent injection of 9 incontinent stomas. The incontinent stomas were appendicovesicostomy in 1, ileovesicostomy (Monti) in 7, and ACE in 2 patients. Mean volume of bulking agents was 3.7 ml (1.4 to 7ml). Of patients, 2 with ACE underwent repeat injections. Of patients, 6 CUC and 1 ACE stoma were continent after injection. Dextranomer was utilized in 5 cases. In the remainder, collagen, polytetrafluoroethylene, or a combination of substances were utilized.

**Conclusions:** The use of injectable bulking agents is a successful and minimally invasive method of treatment for incontinent catheterizable stomas.

**Reviewer’s Comments:** Injecting bulking agents endoscopically for stomal incontinence is an attractive option when compared to open surgery. The authors used a variety of substances which reflects popularity of different agents over the time span surveyed. The collection is small making it difficult to discern any superiority of one substance over another. It is interesting to note that 85% of CUC injections, but only 50% of ACE injections were successful; however, the number of patients is simply too small to make any assumptions. Long-term efficacy of this treatment remains to be determined. Nonetheless, I think the endoscopic bulking approach is certainly first-line therapy for stomal incontinence. (Reviewer-John Gatti, MD).

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Keywords: Endoscopic Injection, Incontinent Catheterizable Channels, Bulking Agents

Print Tag: Refer to original journal article
Neuromodulation May Not Help Female Sexual Dysfunction

Neuromodulation and Female Sexual Function: Does Treatment for Refractory Voiding Symptoms Have an Added Benefit?

Ingber MS, Ibrahim IA, et al:

Int Urogynecol J Pelvic Floor Dysfunct 2009; 20 (September): 1055-1059

For patients with overactive bladder or painful bladder syndrome, there was minimal change in female sexual dysfunction after undergoing neuromodulation.

Objective: To determine if female sexual function improved after InterStim implantation for overactive bladder (OAB) or painful bladder syndrome (PBS).

Methods: Women who had previously gotten InterStim implantation, had been followed chronically, and who are implanted for OAB and/or PBS were evaluated to determine if sexual function improved at 6 months post-implant. Indications for implantation included urgency, frequency, and urge incontinence or pelvic pain with symptoms of urgency and frequency consistent with PBS. Patients all underwent standard evaluation for urinary complaints as well as female sexual function index (FSFI) both preoperatively and postoperatively at 6 months.

Results: 105 women were identified in the database. Of these, 54 had 6-month follow-up data; 27 were actually sexually active prior to implantation and at follow-up. Overall changes in FSFI showed improvement of an average of 3 points; however, this did not reach statistical significance. Patients with underlying OAB as indication for their implant tended to show higher levels of improvement, still not reaching statistical significance (a mean change of 4 as compared to the PBS group which showed essentially no change). All factors related to OAB and PBS related to urinary symptoms did show benefit.

Conclusions: The authors conclude that neuromodulation did not benefit this mixed group of patients' female sexual function; however, given the small numbers of patients with pre- and postoperative data, they concluded that more data would be necessary prior to making a final presumption regarding this.

Reviewer's Comments: Neuromodulation showed somewhat greater improvement in female sexual dysfunction in patients with OAB as indication for implantation of InterStim as compared to those with PBS; however, neither reached statistical significance. There is some effect, especially in the OAB population, although this effect did not reach statistical significance in either trial. (Reviewer-Roger Dmochowski, MD.)

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Keywords: Female Sexual Function, Neuromodulation, Painful Bladder, Overactive Bladder

Print Tag: Refer to original journal article
In the repair of vesicovaginal fistulae, fibrin glue and martius flap interposition graft had similar outcomes; no superiority of either was noted despite significant complicating factors in both groups.

**Objective:** To assess the use of fibrin glue as interposition material in the repair of complicated vesicovaginal fistulae (VVFe) as compared to martius labial flap grafts.

**Design:** Prospective, multi-institutional randomized study.

**Methods:** This study was performed in Africa, evaluating women with complicated VVFe for successful closure as augmented with either interposition graft or fibrin glue. Complicated fistulae are defined as those ≤5 cm which were mature (>3 months from inciting delivery). Complicated factors included recurrence, degree of fibrosis, fistula location near bladder neck, or fistula size >1.5 cm but ≤5 cm. Patients were randomized taking a 1:1 ischemia to receive either martius labial flap graft or fibrin glue.

**Results:** 2 patients were lost in follow-up, leaving 38 evaluable. Overall demographics were similar between groups and complicating factors were also similar, indicating similarity in stratification. Of those, 13 patients undergoing repair with fibrin glue as interposing material were dry as compared to 11 who underwent repair utilizing martius labial flap interposition graft. This was not statistically significant, given the small numbers in the trial.

**Conclusions:** Fibrin glue could be an alternative to anatomic repair of vesicovaginal fistulae, decreasing overall operative time and increasing the simplicity of the procedure. No complicating factors appeared to predetermine failure in this particular trial.

**Reviewer’s Comments:** In this study, fibrin glue did appear to be effective, although greater numbers of patients are needed to be demonstrative of this result. (Reviewer-Roger Dmochowski, MD).

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Keywords: Fibrin Glue, Martius Flap, Vesicovaginal Fistula

Print Tag: Refer to original journal article
Lifestyle Factors Contribute to ED

Abdominal Obesity and Physical Inactivity Are Associated With Erectile Dysfunction Independent of Body Mass Index.

Janiszewski PM, Janssen I, Ross R:


Men with either an obese body mass index or a high waist circumference had approximately 50% higher odds of having erectile dysfunction as compared to men with normal values.

Background: Erectile dysfunction (ED) is associated with reduced quality of life, and its presence foreshadows future cardiovascular disease risk. Prior investigations have shown the risk of ED in association with elevated body mass index (BMI). Others believe that waist circumference is an indicator of health risk irrespective of BMI level. It is also true that high levels of physical activity can ameliorate much of the health risk associated with obesity.

Objective: To investigate whether an elevated waist circumference and/or physical inactivity are associated with ED independent of BMI in a large, representative sample of American men.

Methods: Study samples were obtained from the 2001 to 2004 National Health and Nutrition Examination Survey (NHANES). Males aged ≥20 years assessed for ED were included; waist circumference, physical activity, and BMI were also measured.

Results/Conclusions: Men with ED were 20 years older than men without ED, and the distribution of BMI, waist circumference, and physical activity groups varied according to ED status. Men with ED were more likely to have high waist circumference and BMI, and low physical activity levels compared to men without ED (P <0.001). Using logistic regression analysis, men with either an obese BMI or a high waist circumference had approximately 50% higher odds of having ED as compared to men with normal values for one or both of those measurements (odds ratio [OR] 1.46). The high waist circumference category made an association with the greater odds of ED, even after categories of BMI and physical activity categories were included (OR 1.58).

Reviewer’s Comments: This study is the first to report that regardless of BMI level, abdominal obesity, and the sedentary lifestyle, each significantly approximate a 50% greater likelihood of having ED. The health message derived from this study is clear: achieving the recommended amount of moderate intensity physical activity and maintaining a waist circumference <102 cm is important for the maintenance of proper erectile function. The cross-sectional nature of this study precludes definitive causal inferences about the association between BMI, waist circumference, physical activity, and ED. Also, the assessment of ED in the current study did not allow for specific classification of ED severity. However, the message should remain clear for the practicing urologist: appropriate lifestyle alterations are likely beneficial for proper erectile functioning. (Reviewer-Kevin McVary, MD).

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Keywords: Erectile Dysfunction, Abdominal Obesity, Physical Inactivity

Print Tag: Refer to original journal article
Most Urologists Practice Penile Rehabilitation

Post-Radical Prostatectomy Pharmacological Penile Rehabilitation: Practice Patterns Among the International Society for Sexual Medicine Practitioners.


J Sex Med 2009; 6 (July): 2032-2038

Despite the lack definite clinical evidence and consensus in this area, 85% of respondents practice rehabilitation.

Background: Erectile dysfunction (ED) is a complication following radical prostatectomy. There has been a great interest in strategies to maximize the chances of erectile function recovery. This term is called "penile rehabilitation." Several published animal studies demonstrate the effect of phosphodiesterase type 5 inhibitors (PDE5) which promote erectile function recovery following cavernous nerve injury. Recent double blind studies using PDE5 inhibitors suggest the potential of their clinical utility in aiding the recovery of erectile function following surgery.

Objective: To define the penile rehabilitation practice patterns of clinicians who are members of the International Society for Sexual Medicine (ISSM).

Methods: Penile rehabilitation was defined as the use of any drug or device following radical prostatectomy to maximize the chances of erectile function recovery. This study circulated a 36-item questionnaire to the ISSM membership addressing a variety of aspects, including practice patterns of rehabilitation, types of surgeries, and methods used.

Results: 301 physicians completed the questionnaire, 65% of which declared to have received sexual medicine specialty training, although the majority have <50% of their practices devoted to sexual medicine. Of participants, 44% said they had uro-oncology specialty training, and 60% performed radical prostatectomies. Considering those who performed radical prostatectomies, almost two-thirds did <50 procedures per year, and 15% performed >100 yearly. Of clinicians, 87% performed some form of rehabilitation, 6% commencing right after surgery, whereas half waited for the catheter to be removed. Of participants, 90% preferred to institute rehabilitation ≤4 months of surgery. Nearly all respondents (95%) used PDE5 inhibitors, 75% used intercavernous injections, and a minority used a vacuum device or intraurethral prostaglandins. Of respondents, 67% performed rehabilitation only on selected patients, a selection bias which was based on age, nerve sparing status, preoperative erectile function and vascular comorbidities.

Conclusions: On multivariate analysis, only performing radical prostatectomies and seeing >50 post-radical patients per year were independent predictors of performing rehabilitation. Of those who did not use penile rehab, 50% said the reason was cost, 25% due to lack of evidence based information, unfamiliarity with the concept in the remaining 25%.

Reviewer’s Comments: There were 300 respondents out of a possible 3000 potential. It is noteworthy that despite the lack definite clinical evidence and consensus in this area, 85% of respondents practice rehabilitation. Those most likely to be involved in rehabilitation were those performing radical prostatectomy and seeing many of these patients in a year's time. It should be noted that these results probably do not represent the current practice status of most general urologists, as the sample population consisted of members of a society interested in sexual medicine. (Reviewer-Kevin McVary, MD).

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Keywords: Penile Rehabilitation, Prostate Cancer, Erectile Dysfunction

Print Tag: Refer to original journal article