Baseline PSA Is Highly Predictive of Prostate Cancer Death

Baseline PSA as a Predictor of Prostate Cancer-Specific Mortality Over the Past 2 Decades: Duke University Experience.

Tang P, Sun L, et al:

Cancer 2010; June 29 (epub ahead of print):

While many factors play a role in ultimate death from prostate cancer, baseline prostate-specific antigen can independently predict for this outcome as well.

Objective: To determine whether baseline prostate-specific antigen (PSA) value can predict ultimate death from prostate cancer.

Design: Retrospective data from the Duke Prostate Center.

Methods: Of 34,805 men over the past 20 years, 4568 with PSA data, prostate cancer diagnosis, and follow-up >6 months were included. Specific predictors assessed for prostate cancer-specific (CSS) and overall (OS) survival were baseline PSA, age, and race.

Results: Baseline PSA was highly predictive of death from prostate cancer. Specifically, these hazard ratios for PSA of 4.0 to 9.9 and ≥10 were 3.0 and 11.5, respectively, when compared to PSA <2.5. Advanced age at diagnosis and African American race were also predictive of death from cancer and all causes.

Conclusions: The PSA at diagnosis was found to be highly predictive of prostate cancer death in the Duke prostate database over the past 20 years.

Reviewer’s Comments: In the July issue of Cancer, Tang and colleagues from Duke University have again validated the role of baseline PSA for predicting death from prostate cancer. They queried the Duke Prostate Center database over the past 20 years, and ultimately included 4568 men who had been diagnosed with prostate cancer and had at least 6 months of follow-up. These men represent a heterogeneous selection of the population with different stages, grades, and treatments administered, and may therefore be more representative of normal practice in general. They stratified PSAs into < 2.5, 2.5 to 3.9, 4.0 to 9.9, and ≥10. They found that PSA of 4.0 to 9.9 was associated with a 3-fold higher risk of prostate cancer death, and PSA ≥10 was associated with an 11.5-fold higher risk compared to men with PSA of <2.5. They also confirmed that advanced age and African American race were associated with higher risks of both prostate cancer and overall death. While the findings from this study are not revolutionary or even new, they add to our confidence in the use and usefulness of PSA and provide further validation with a very large series to other studies that have suggested similar findings. Far from moving away from PSA testing, we should be advocating the continued application of this test for men with an evolving and improving understanding of the information it provides. (Reviewer-Steven E. Canfield, MD).

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Keywords: Prostate Cancer, Prostate-Specific Antigen

Print Tag: Refer to original journal article
Active Surveillance Is a Safe Option for Low-Risk Prostate Cancer Patients

Outcomes in Localized Prostate Cancer: National Prostate Cancer Register of Sweden Follow-Up Study.
Stattn P, Holmberg E, et al:

J Natl Cancer Inst 2010; 102 (July 7): 950-958

This study found little difference in the 10-year prostate cancer survival for low-risk patients on surveillance versus active treatment. Surveillance should be considered as a safe option for these patients.

Objective: To determine the natural history of prostate cancer in the modern era.
Design: Swedish population-based cohort study.
Methods: Patients from January 1, 1997 through December 31, 2002 with localized, low- to intermediate-risk prostate cancer who underwent treatment with active surveillance (AS), radiation therapy (RT), or surgery (RP) were followed.
Results: 6849 patients were identified. Cumulative 10-year prostate cancer-specific mortality after AS was 3.6% for all and 2.4% for low-risk only patients compared to 2.7% and 0.7% for patients who underwent curative intent procedures (RT or RP).
Conclusions: Prostate cancer mortality is quite different in the modern (prostate-specific antigen) era. Active surveillance may be a reasonable option for many low-risk disease patients.
Reviewer's Comments: In the current issue of the J Natl Cancer Inst, Stattn and colleagues report on their modern cohort of prostate cancer patients. These patients were all aged ≤70 years, had T1-2, Gleason ≤7 prostate cancer, with PSAs of <20. Included patients all underwent active surveillance, RT, or RP with curative intent. This group of patients is therefore extremely representative of the majority of men we currently treat with these strategies in the United States. The total cohort was composed of 6849 men. Overall, 2021 men underwent initial surveillance, of which 34% underwent definitive treatment after a median of 4 years. A total of 3399 men elected initial RP and 1429 men elected initial RT. Only 3.6% of patients in the AS arm and 2.7% in the RT or RP arms died of prostate cancer at 10 years. For low-risk disease only, these numbers were 2.4% and 0.7%, respectively. Patients undergoing surveillance were much more likely to die of competing causes -- in this case, the 10-year cumulative risk for patients in the AS group was 19.2% compared to 10.2% for patients in the curative intent group. This difference highlights the inherent selection bias in observational studies. It is not surprising that more patients with limited life expectancy were placed on surveillance. Such patients are much more likely to die of competing causes, and the very small survival benefit that active treatment may afford them is unlikely to be realized due to these competing causes for death. Another important finding from the study was that all-cause mortality (compared to age-matched controls) was lower for patients with curative treatments (RT or RP), suggesting that these interventions may have impacted survival. The update from the Swedish National Prostate Cancer Register follow-up study provides insightful and useful information on our most common current treatment options for our most common current prostate cancer patients. Highlights from this study include the findings that AS may be appropriate for low-risk disease, especially in men with higher comorbidity scores. (Reviewer-Steven E. Canfield, MD).

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Keywords: Prostate Cancer, Outcomes
Print Tag: Refer to original journal article
Doxazosin Successful as Medical Expulsive Tx for Distal Ureteral Stones

Preminary Study of Efficacy of Doxazosin as a Medical Expulsive Therapy of Distal Ureteric Stones in a Randomized Clinical Trial.

Zehri AA, Ather MH, et al:
Urology 2010; 75 (June): 1285-1288

Doxazosin significantly improves stone expulsion and is associated with decreased colic frequency and use of analgesia.

**Objective:** To assess the clinical efficacy of doxazosin as medical-expulsive therapy for distal ureterolithiasis.

**Design:** Prospective randomized nonblinded trial.

**Participants:** 65 patients presenting with symptomatic 4 to 7 mm distal ureteral stones.

**Methods:** Patients were randomized to a control group (group 1, n=32) with 50 mg diclofenac sodium only for pain or a treatment group (group 2, n=33), which received doxazosin 2 mg nightly in addition to diclofenac sodium. Treatment duration was until passage of stone or 28 days, whichever came first. The primary end point was the stone expulsion rate. The secondary end points included time to stone expulsion, use of analgesics, and number of emergency department visits, hospitalizations, and drug side effects. Statistical analysis was performed on all the variables.

**Results:** Both groups were comparable in terms of demographic, clinical, and stone-related parameters. Stone expulsion rate was significantly higher in the treatment group (70%) versus control (38%) and the expulsion time was significantly shorter in the study group (7.0 days) versus control (12.5 days). Number of pain episodes and analgesic used was also statistically significantly less in the treatment group. No patient had an adverse drug-related event.

**Conclusions:** Doxazosin significantly improves stone expulsion and is associated with decreased colic frequency and use of analgesia. It is well tolerated with no adverse drug-related events.

**Reviewer’s Comments:** Selective α1-adrenoceptor antagonists (tamsulosin and alfuzosin) had become the standard of care for medical expulsive therapy in patients with small distal ureteral stones. Non-selective α1 antagonists have not been well-studied or commonly used due to fear of side effects -- mainly hypotension. Doxazosin, the drug used in this study, is commonly titrated up over the course of several weeks from 1 mg to 2 mg to 4 mg as an effective dosage for treating lower urinary tract symptoms. At that rate of titration, it is felt that the effective dosage would not be obtained in time to be effective for ureteral stone passage. The authors of this study use a 2-mg dose of doxazosin and show it to have similar effectiveness as tamsulosin in the passage of small distal ureteral stones without any side effects. The results are not surprising and are useful to practicing urologists since doxazosin is much cheaper than the selective α1 antagonists. The study is hampered, however, by the open-label status, small numbers, and strict exclusion to small distal ureteral stones. It would be interesting to see a larger study examining selective versus non-selective α1 antagonists as the authors suggest in the conclusion. (Reviewer-David A. Duchene, MD).

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Keywords: Medical Expulsive Therapy, α1-Adrenergic Antagonists, Quality of Life

Print Tag: Refer to original journal article
**Objective:** To examine the relationship between body mass index (BMI) and 24-hour urine constituents in a population of stone-forming patients.

**Design:** Retrospective chart review.

**Participants:** 880 stone-forming patients who presented to a metabolic stone clinic for initial evaluation.

**Methods:** Patients were stratified by gender and divided into quartiles of BMI. Associations between BMI and urine parameters were explored using bivariate and multivariate linear regression.

**Results:** On bivariate analysis, increasing BMI was associated with a significant increase in sodium, calcium, citrate, uric acid, magnesium, calcium oxalate, and decrease in urinary pH in men. In women, it was associated with a significant increase in sodium, uric acid, oxalate, and decreasing pH. On multivariate analysis, BMI was associated with only increases in sodium and calcium oxalate and decrease in pH in men. In women, multivariate analysis demonstrated a positive association between BMI and urine sodium, creatinine, and phosphate and a negative relationship with urine citrate and sulfate.

**Conclusions:** Increasing BMI was related to several risk factors for urinary stone disease in this study, including increasing urine sodium and decreasing pH in men and increasing urine uric acid, sodium, and decreasing urine citrate in women. Just as general recommendations for patients with nephrolithiasis include high voided volumes, low dietary sodium, and low animal protein intake, perhaps weight reduction should be included as part of the counseling of stone-formers to optimize 24-hour urine parameters.

**Reviewer’s Comments:** This study confirms the findings of several other recent studies that suggest that BMI is a relative risk factor for increasing stone risk parameters. The manuscript has a good sample size and uses BMI in quartile measurements to obtain a linear continuum. Dietary influences are attempted to be controlled by using multivariate analysis on the urinary constituents. One of the main findings would suggest that for both men and women, increasing BMI leads to increasing sodium excretion even after adjusting for diet. The other main finding points to decreasing pH as part of insulin resistance and/or the metabolic syndrome as BMI increases. Both these parameters would significantly increase stone risk. Unfortunately, this is a retrospective study done in all stone-forming patients without a controlled dietary regimen. The nature of the study makes it difficult to completely determine if BMI is an independent risk factor or if heavier individuals continue to have poorer diets than their more slender stone-forming counterparts. I do think that we can safely say that obesity and the Western diet contribute significantly to stone formation, and that weight reduction should be included in counseling of our patients, though. (Reviewer-David A. Duchene, MD).

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**Keywords:** Body Mass Index, Dietary Influences, Stone Risk Parameters, 24-Hour Urine Collection

**Print Tag:** Refer to original journal article
The success rate of division of the crossing vein with cephalad relocation of the crossing artery to relieve ureteropelvic junction obstruction provides a 90% success rate.

Objective: To demonstrate the update report of the authors’ experience with laparoscopic management of ureteropelvic junction obstruction (UPJO) by division of the aberrant vein and cephalad relocation of the crossing artery in a large group of patients with long-term follow-up.

Methods: Of 329 cases of UPJO treated laparoscopically, 117 patients (36%) were found intraoperatively to have lower pole crossing vessels. Of these, 71 were selected for laparoscopic division of the aberrant vein and cephalad relocation of crossing artery. This procedure avoided violation of the collecting system. These patients were selected for this procedure by the surgeon intraoperatively based upon observation of a significant decrease in the degree of hydronephrosis and antegrade pyeloureteral peristalsis after cranial relocation of the crossing artery and division of the aberrant vein. The rationale for selecting these patients was that they did not have an intrinsic obstruction.

Results: All patients underwent intravenous urography (IVU) and diuretic renography preoperatively. Division of the crossing vein allowed better mobilization of the crossing artery. The remaining crossing artery was relocated cephalad and fixed to the peripelvic tissue using 4-0 Vicryl interrupted sutures. No drain or ureteral stent was placed. Follow-up consisted of an IVU or diuretic renography in 3 months, then annually. The primary main symptom was flank pain in 59 cases. The mean duration of follow-up was 29 months. The success rate was 90% defined as alleviation of pain, decrease in hydronephrosis, and resolution of obstruction on renography.

Conclusions: Cephalad relocation of the lower pole crossing artery after division of the crossing vein in selected cases could be an ideal alternative for dismembered pyeloplasty with noticeable outcomes in long-term follow-up.

Reviewer’s Comments: The success rate of laparoscopic pyeloplasty is around the mid to upper 90s and is difficult to improve upon. The proposed procedure touts the advantage of avoiding collecting system violation. Not violating the collecting system avoids the need for 4 to 6 weeks of a postop ureteral stent. Avoidance of a stent, especially in the typical young age population that UPJOs present, could amount to a significant quality of life issue. Additionally, urinary leakage and infection are potential complications when the collecting system is opened. While opening the collecting system could be seen as a disadvantage, standard dismembered pyeloplasty does permit simultaneous renoscopy to retrieve stones that frequently coexist with renal obstruction. Of course, the most important concern for this procedure is the possibility of missing a coexisting intrinsic obstruction. The fact that the success rate was 90% for this procedure compared to the upper 90s for dismembered pyeloplasty suggests that a few patients with intrinsic obstructions were missed. I continue to perform standard pyeloplasty in order to avoid a potential return to the operating department, but if we can more accurately choose the patients with only obstruction due to crossing vessels, this procedure would be ideal. (Reviewer-Kyle J. Weld, MD).

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Keywords: Ureteropelvic Junction Obstruction, Laparoscopy, Pyeloplasty

Print Tag: Refer to original journal article
Robotic Partial Nephrectomy Has Short Learning Curve, Limited Blood Loss

**Impact of the Learning Curve on Perioperative Outcomes in Patients Who Underwent Robotic Partial Nephrectomy For Parenchymal Renal Tumours.**

Mottrie A, De Naeyer G, et al:

Euro Urol 2010; 58 (July): 127-133

Robotic-assisted partial nephrectomy can be performed with excellent results by urologists with prior robotic experience after about 30 cases.

**Objective:** To summarize the outcomes of 62 patients who underwent robotic partial nephrectomy.

**Methods:** The described procedure is standard using a 3-arm technique. Typically, only the artery was clamped, but both the artery and vein were clamped for central tumors. The defect was closed using a running deep and cortical suture. Care was taken to place the sliding Hem-o-Lok clips outside the defect.

**Results:** All tumors were classified as cT1a except for 7 CT1b tumors, and all tumors were peripheral except for 9 hilar tumors. The mean clinical size was 2.9 cm. Median warm ischemia time was 18.5 minutes. The median console time was 90 minutes. The median estimated blood loss was 95 mL. Perioperative complications occurred in 10 cases (16%). Six of the complications were hematuria or hematoma formation. Two renal vein injuries and 1 vena cava injury occurred. Surgeon experience significantly correlated to robotic console time and warm ischemia time. After 20 cases, console time decreased to <100 minutes. After 30 cases, warm ischemia time decreased to <20 minutes. There was no correlation between surgeon experience and blood loss and complication rate.

**Conclusions:** Robotic partial nephrectomy is a viable option for nephron-sparing surgery in patients with renal carcinoma. Specifically, in the hands of a surgeon with extensive robotic experience, this procedure requires a short learning curve to reach warm ischemia times <20 minutes, console times <100 minutes, limited blood loss, and acceptable overall complication rates.

**Reviewer's Comments:** Laparoscopic partial nephrectomy is a technically challenging procedure with a difficult learning curve. Several authors have described the benefits of the da Vinci surgical robot for partial nephrectomy. The surgeon presenting the current series had extensive robotic experience with modest pure laparoscopic partial nephrectomy experience. As confidence is gained with a new surgical procedure, typically more challenging cases are accepted. Regardless of the possibility of selection bias in this series, the authors noted significant improvement in 2 objective parameters: console time and warm ischemia time. Other parameters, such as blood loss and complication rate, did not change with the experience of the surgeon. Because of the relatively small numbers in this series, margin status is not a viable parameter to assess in terms of measuring success since only one positive surgical margin was noted. Additionally, the cohort is not mature enough to assess survival as a measure of success. Using thresholds of <100 minutes for console time and <20 minutes for warm ischemia time, the authors conclude that surgeons with prior robotic experience can accomplish excellent results after about 30 cases. (Reviewer-Kyle J. Weld, MD).

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Keywords: Renal Neoplasm, Nephrectomy, Laparoscopy

Print Tag: Refer to original journal article
Does Indwelling Catheter Have Longer Staying Power for Bladder Management?

Cameron AP, Wallner LP, et al:

J Urol 2010; 184 (July): 213-217

The majority of patients at the time of discharge from a rehab hospital are using clean intermittent catheterization (CIC) as bladder management. However, during follow-up over many years, 80% of patients on CIC switched to an indwelling catheter.

Objective: To determine how bladder management is accomplished in patients with spinal cord injury in the United States and what factors influence the type of management used.

Design/Methods: The National Spinal Cord Injury database has collected data on patients with spinal cord injuries since 1972. As of 2003, there were over 30,000 patients enrolled in the database. The database has 2 separate data sets. The initial data set is administered immediately following a traumatic spinal cord injury during rehabilitation before discharge home. A follow-up questionnaire is administered every 5 years and contains similar data as the initial questionnaire. Patients have the option of selecting only 1 type of bladder management and these management types were categorized as normal voiding, condom catheters, clean intermittent catheterization (CIC), indwelling catheter (urethral and suprapubic), urinary diversion, and other.

Results: Data were available for over 24,700 individuals at the time of discharge from rehabilitation. The number of patients who could void spontaneously remained stable, between 18% and 22%. The percentage of patients with spinal cord injury whose bladder was managed with a condom catheter decreased steadily from a peak of over 34% in 1972 to a low of 1.5% in 2005. The use of intermittent catheterization increased from 12.6% in 1972 to a peak of 56% in 1995, and decreased to 49% in 2005. Indwelling catheter use initially decreased from 33% in 1975 to 16% in 1995, but subsequently increased to 23% in 2005. The rate of urinary diversion, primarily ileal conduit, remained stable, at less than 1%. Follow-up data, ranging from 5 to 30 years after initial injury, were available for almost 13,000 individuals. On longitudinal analysis, individuals who originally used an indwelling catheter as bladder management were the least "likely" to switch to another method, with over 70% continuing to use an indwelling catheter at 30 years. Individuals using CIC and condom catheterization were much more likely to switch with only 20% and 34%, respectively, remaining on the same management at 30 years of follow-up.

Conclusions: With time, bladder management with CIC has increased in popularity. However, only 20% of patients initially on CIC remained on this form of bladder management. More research on the safety of each of these methods needs to be performed to provide better guidance to aid with this decision.

Reviewer's Comments: There are several limitations to this study. The database encompasses only 16 clinical sites and approximately 15% of the spinal cord injury population in the United States and therefore, the findings may not reflect care given at other centers. Because the study was performed over many years, there were a significant number of patients lost to follow-up. (Reviewer-Karl J. Kreder, MD).

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Keywords: Spinal Cord Injuries, Neurogenic, Urinary Catheterization, Catheters

Print Tag: Refer to original journal article
Increasing evidence suggests a genetic basis for the development of stress urinary incontinence (SUI), and several candidate genes have been identified that may lead to alterations in the composition of the extracellular matrix, ultimately predisposing some women to develop SUI.

Objective: To summarize the current literature that supports a genetic basis for stress urinary incontinence (SUI).

Design/Methods: This report is based on a literature review. One cited report compared monozygotic and dizygotic twin data, and another described animal experiments that identified potential genes in the urethral tissue of rats with experimentally induced stress incontinence. Several human studies examined type 1 and type 3 collagen in vaginal tissues. The authors cited work on single nucleotide polymorphisms (SNPs) for several extracellular matrix-related proteins. They also examined the relationship between stress incontinence and pelvic organ prolapse.

Results: When comparing twin data, the authors found that genetic and nonshared environmental factors equally contributed about 40% of the variation in liability. Shared environment accounted for approximately one fifth of the total variance for the 2 disorders of SUI and pelvic organ prolapse. Using microarray analysis, Lin et al., identified 22,000 potential genes in the urethral tissue of Sprague-Dawley rats with experimentally induced SUI. Compared to continent rats, the stress incontinent rats had increased expression of multiple extracellular matrix proteins and, of particular importance, was the fact that genes involved in inflammation, collagen breakdown, and small muscle inhibition were up-regulated in the urethras of female rats with SUI. The authors cited the work of numerous investigators that have demonstrated abnormalities in the extracellular matrix, particularly related to type 1 and type 3 collagen. When examining single nucleotide polymorphisms, the data suggest that type 1 collagen degradation is increased in stress incontinence, but also may represent a potential molecular mechanism for the development of SUI. Stress urinary incontinence and pelvic organ prolapse are closely related and several candidate genes thought to be involved in pelvic organ prolapse have been previously studied in SUI. Clinical data suggest that single nucleotide polymorphism increases the likelihood of early onset pelvic organ prolapse. Hormonal status also appears to have an effect on several extracellular matrix genes.

Conclusions: There is increasing evidence to support a genetic basis for the development of SUI, but some of the evidence is contradictory.

Reviewer's Comments: Further studies are needed to identify additional genes that are associated with SUI and to study the influence of hormones on the extracellular matrix proteins involved in the development of SUI. (Reviewer-Karl J. Kreder, MD).

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Keywords: Genetics, Pelvic Organ Prolapse, Stress Urinary Incontinence

Print Tag: Refer to original journal article
Men who do not gain symptomatic benefit from testosterone supplementation should consider discontinuation.

**Background:** Testosterone supplementation has been shown to safely increase muscle mass and strength in healthy older men but has not been studied in older men with limited mobility.

**Objective:** To assess the efficacy of testosterone treatment in older men who have limited mobility.

**Methods:** Community-dwelling men aged >65 years, with limited mobility and testosterone 100 to 350 ng/dL or free testosterone levels <50 pg/mL were randomly assigned to daily placebo or testosterone gel (100 mg) for 6 months. Men receiving testosterone had dosage adjusted after 2 weeks to maintain testosterone levels between 500 and 1000 ng/dL. Muscle strength on leg press and various physical strength outcomes was measured. Adverse events were categorized with the use of the Medical Dictionary for Regulatory Activities classification.

**Results:** 209 men were enrolled in the study at the time the study was discontinued. The data and safety monitoring board recommended that the trial be discontinued early because of a significantly higher rate of adverse cardiovascular events in the testosterone group compared to placebo. There were 23 cardiac events in the testosterone group compared to 5 in the placebo group. The odds ratio held up to adjustments for various patient factors (age, comorbidities, etc) and remained a constant rate throughout the duration of the trial. The testosterone group did have significant improvements in the primary and various secondary outcomes at the time of discontinuation.

**Conclusions:** Although this study was discontinued early because of increased cardiac events in the testosterone group, it is important to note the significant amount of comorbid conditions in this study population. This fact, in conjunction with conflicting data from various studies on the risks and benefits of testosterone therapy in older men, limits broader inferences about the safety of testosterone therapy.

**Reviewer’s Comments:** Testosterone supplementation in older men continues to generate a great deal of debate. The difficult decision to stop the study early was made based on reasonable evidence, however, now further trials will need to be performed. The authors do an excellent job of pointing out this study's limitations: small size, specific population restrictions, and statistically higher occurrence of hyperlipidemia and hypertension in the intervention group. When looking closely at the adverse events, a total of 7 in the intervention group were directly related to atherosclerotic vascular disease versus 1 in the placebo group. In contrast, a recent excellent meta-analysis of testosterone trials of 51 high quality trials with 3-month to 3-year follow-up selected from a total of 984 trials showed no increased risk of cardiovascular events (Montori et al, J Clin Endocrinol Metab 2009;94:3729-3740). However, it seems prudent to discontinue testosterone therapy in men who do not gain symptomatic benefit from a reasonable trial of testosterone replacement therapy. (Reviewer-Tobias S. Kohler, MD, MPH).

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Keywords: Andrology, Testosterone, Cardiovascular Disease

Print Tag: Refer to original journal article
Late-onset hypogonadism can be defined as the presence of erectile dysfunction, low libido, and poor morning erection with a total testosterone <319 ng/dL and free testosterone <6.3 ng/dL.

Objective: To identify and accurately describe late-onset hypogonadism in elderly and middle-aged men by evidence-based correlation of symptoms with laboratory tests.

Methods: Questionnaire and physical assessment data from 3369 randomly selected participants in the European Male Aging Study (EMAS), age 40 to 79 years, were collected in regard to general, sexual, physical, and psychological health. Total morning testosterone, sex hormone-binding globulin, and calculated free testosterone were also obtained. After exclusion, 3219 men were split into training and validation sets and logistic regression was used.

Results: Symptoms of poor morning erection, low sexual desire, erectile dysfunction, inability to perform vigorous activity, depression, and fatigue were significantly related to testosterone levels. Only the 3 sexual symptoms had a syndromic association with decreased testosterone levels. These relationships were confirmed in the validation set.

Conclusions: Late-onset hypogonadism can be defined as the presence of erectile dysfunction, low libido, and poor morning erection with a total testosterone <319 ng/dL or free testosterone <6.3 ng/dL. The estimated prevalence of late-onset hypogonadism in this study population was 2.1% and increased with age, higher body mass index, and greater number of coexisting illnesses.

Reviewer's Comments: What is a normal part of aging and its associated comorbid conditions, and what symptoms are due purely from low testosterone levels? The authors of this study should be commended for their work in attempting to use evidence-based criteria to develop parsimonious clinical and biochemical criteria for diagnosing late-onset hypogonadism. That being said, the final estimated prevalence of late-onset hypogonadism in their study was strikingly low at 2.1% -- a reflection of their very strict criteria and a stark contrast to their previous biochemical hypogonadism prevalence of 23.3% from the same data set. Interestingly, the progression of symptoms from low testosterone starting from the most sensitive included physical symptoms (<375 ng/dL = decreased vigor, difficulty walking >1 km, and decreased bending), decreased morning erections (<317 ng/dL), decreased erections (<245 ng/dL), decreased libido (<231 ng/dL), and finally psychological symptoms (<181 ng/dL = fatigue, loss of energy, and sadness). What this study does not assess is who would truly benefit from testosterone replacement. In other words, 2.1% of subjects' hypogonadal symptoms could be purely attributed to low testosterone, but this does not mean men who do not meet the study’s definition of hypogonadism would not benefit from testosterone replacement. Should insurance companies not approve coverage of a trial of testosterone therapy if the patient has all of the sexual symptoms but a level of 6.3 ng/dL? Much is yet to be determined. (Reviewer-Tobias S. Kohler, MD, MPH).

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Keywords: Hypogonadism, Elderly & Middle-Aged Men

Print Tag: Refer to original journal article
Lean Meat in Moderation Seems to Be Heart Healthy

Beneficial Impact on Cardiovascular Risk Profile of Water Buffalo Meat Consumption.

Giordano G, Guarini P, et al:

Eur J Clin Nutr 2010; 64 (September): 1000-1006

Water buffalo meat appears to be healthier compared to meats with higher saturated fat contents.

**Objective:** To determine the impact on cardiovascular risk markers in individuals who consume water buffalo meat compared to cow meat.

**Design/Methods:** This was a longitudinal observational study that followed 300 adult subjects who were either recent (n=100) or long-term consumers of water buffalo meat (n=100) compared to those who did not consume this product (n=100). Recent consumers of buffalo meat basically eliminated their consumption of cow meat and consumed 600 grams or around 3 to 4 servings a week on average.

**Results:** The average age of the participants was 55 years, about half were female, and the follow-up period was 1 year. There was a significant drop in total cholesterol and triglycerides compared to non-buffalo meat consumers, but there was no change in HDL or "good cholesterol," total weight, or blood glucose. Vascular changes were significantly more favorable in the buffalo meat consumers including changes in carotid arterial wall thickness.

**Conclusions:** Shifting from cow meat to water buffalo meat consumption appears to be associated with an improvement in cardiovascular risk markers.

**Reviewer's Comments:** If you like Buffalo mozzarella cheese or basically a Caprese salad at the local Italian restaurant you are already enjoying something that I consider healthy from the water buffalo! How groovy is that?! Water buffalo milk and meat has more protein, more healthy fats, less saturated fat, fewer calories, and a similar iron and cholesterol content compared to cow meat. Red meat and processed meats are loaded with saturated fat, calories, sodium and that is not groovy! Meat is discussed in medicine in generic terms, but not all meats are created equal. Health care professionals should provide more education to patients that somehow believe that the complete elimination of all meat is healthy. If someone does not want to eat meat for personal beliefs because harming animals is cruel, that is one thing and should be respected, but if someone likes to consume meat and believes that cholesterol or prostate-specific antigen will reduce based on eliminating all meat consumption, please advise them to switch to lean game meats as a part of a heart healthy program. I like to even challenge patients that eat grain or corn-fed beef to switch just one time to grass-fed beef and tell me if they like it more, and 90% of the time (unscientific survey of course -- kind of like the theory that more patients go to the ED on a full moon) patients thank me for making the switch because of the improved taste, and they are amazed at the nutritional profile difference. (Reviewer-Mark A. Moyad, MD, MPH).

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Keywords: Water Buffalo Meat, Cardiovascular Risk Profile

Print Tag: Refer to original journal article
Eating Salmon Regularly May Be as Healthy as Consuming Fish Oil Supplements

Effects of Weight Loss and Seafood Consumption on Inflammation Parameters in Young, Overweight and Obese European Men and Women During 8 Weeks of Energy Restriction.

Ramel A, Martinez JA, et al:

Eur J Clin Nutr 2010; 64 (September): 987-993

Regular fatty (oily) fish consumption should be encouraged because it reduces inflammatory markers that have been linked to urologic cancers.

Objective: To determine the impact of omega-3 fatty acids on weight loss and inflammation.

Design/Methods: This was an 8-week randomized intervention trial with 324 overweight (mean body mass index [BMI], 30 to 32) subjects (mean age, 30 to 32 years) who were placed into one of following 4 groups along with a calorie restricted (-30% of normal intake) diet: 3 servings (150 g/serving) of salmon per week that provided 2100 mg of omega-3 fatty acids per day on average; 3 servings (150 g/serving) of cod per week that provided 300 mg of omega-3 per day; 6 fish oil capsules per day that provided a total of 1300 mg of omega-3 fatty acids per day on average; and a control group that consisted of 6 sunflower capsules per day. Four inflammation parameters were measured including: hs-CRP, IL-6, glutathione reductase, and PGF2α. The salmon was originally supposed to be of equal omega-3 fatty acid value to the supplements, but after the researchers purchased farmed salmon they found it contained twice as much of the predicted omega-3 content.

Results: All of the groups experienced significant weight loss after 8 weeks compared to baseline, which was on average about 11.5 pounds. Greater average weight loss occurred among men and women in the fish oil groups followed by the salmon, cod, and the control groups, but they were not significant from each other. There were reductions in all 4 parameters in all 4 groups, but the salmon group had the largest reduction in inflammation parameters with 3 of 4 measurements significantly decreased.

Conclusions: Salmon consumption was most effective at reducing inflammatory markers, which can be explained by the high dose of omega-3 fatty acids provided by this diet compared to the other groups.

Reviewer's Comments: Did you know there are pharmaceutical companies right now that are developing prostate cancer treatment drugs that target IL-6 and the reduction of this compound?! Fish and fish oil appear to reduce IL-6. Groovy (learned this word from the Brady Bunch & Laugh-In shows circa 1977). Does this mean that eating salmon or other fish high in omega-3 fatty acids or taking omega-3 dietary supplements can reduce the risk of cancer or treat some low-grade tumors? Maybe, but I am not holding my breath. I tell patients to try and get several servings a week of healthy fatty oily fish such as salmon (farmed or wild), sardines, anchovies, mackerel, tuna, herring, etc. If they are not able to do this, perhaps taking a daily 500- to 1000-mg fish oil pill makes sense especially if they have arthritis, need a mental health boost, or are at high risk of heart disease. But without healthy weight maintenance, all this stuff may be ineffective. Keep in mind that these subjects also had a calorie-restricted diet, so it is possible that the diet alone can do the trick, but the diet with healthy fish consumption is the smart path. (Reviewer-Mark A. Moyad, MD, MPH).

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Keywords: Weight Loss, Seafood Consumption, Omega-3 Fatty Acids, Inflammation

Print Tag: Refer to original journal article
**Objective:** To determine the effect of everolimus in metastatic renal cell carcinoma (mRCC) patients who have failed prior tyrosine-kinase inhibitor (TKI) therapy.

**Design/Methods:** Randomized controlled trial comparing everolimus to placebo. Overall, 416 patients with mRCC were included in this final analysis. Patients had failed at least 1 prior course of sunitinib or sorafenib, and were randomized 2:1 to everolimus or placebo.

**Results:** The study was unblinded and stopped early at the second planned interim analysis due to benefit from everolimus. The current paper is a further final analysis with longer follow-up data. Median progression-free survival (PFS) was 4.9 months for everolimus and 1.9 months for placebo. Overall survival (OS) was 14.8 and 14.4 months, respectively, with 80% of original placebo patients ultimately taking everolimus. Exploratory analysis suggests a survival advantage of 1.9-fold with everolimus.

**Conclusions:** Everolimus extended PFS and appeared to double OS in patients with mRCC who had failed prior first-line therapy.

**Reviewer's Comments:** Everolimus made news last year when this trial was stopped early due to the benefit of the medication, which was seen earlier than expected. It is always a tricky subject to stop trials early -- they must meet rigorous pre-planned criteria. An additional challenge facing the everolimus trial was that patients progressing on placebo were unblinded and allowed to cross over to everolimus throughout the study. By the end, 80% of "placebo" patients were taking everolimus. This was done for ethical reasons, and was likely required by many internal review boards. However, it makes an understanding of the true survival benefit impossible. The authors have included a novel statistical manipulation here that attempts to calculate what the survivals would be like if no placebo patient crossed over. The calculation suggests that everolimus almost doubled the survival, but it must be viewed as a theoretical calculation. It is true that most patients survived for over a year with end-stage mRCC, and the extended PFS was seen in placebo patients who then crossed over. It is enough to establish the role of everolimus as the first choice for second-line therapy in mRCC. (Reviewer-Steven E. Canfield, MD).

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Keywords: Renal Cell Carcinoma, Everolimus

Print Tag: Refer to original journal article
Patients with prostate cancer, especially those on hormone therapy, should be carefully monitored for deep venous thrombosis and pulmonary embolism.

**Objective:** To determine the risk of thromboembolic disease in men with prostate cancer.

**Design/Methods:** This was a retrospective cohort from the Swedish National Prostate Cancer Register (NPCR), comparing men with prostate cancer from 1997 to 2007 to matched population controls for incidence of deep venous thrombosis (DVT), pulmonary embolism (PE), and arterial embolism (AE).

**Results:** 30,642 men underwent hormone therapy (HT), 26,432 had surgery (RP) or radiotherapy (RT), and 19,526 elected surveillance. There were 1881 men who had a thromboembolic episode. When compared to the expected rates in the general population, DVT occurred 2.48 times more often in men on HT, 1.73 times more often in men who underwent RP or RT, and 1.27 times more often in men on surveillance. For PE, rates were 1.95, 2.03, and 1.57, respectively.

**Conclusions:** Increased rates of DVT and PE were seen in prostate cancer patients, including surveillance patients, but worse for patients with HT. This suggests that the cancer itself as well as the HT may increase the risk of embolic disease.

**Reviewer's Comments:** The Swedish PCBaSe, the database used for this study, uses data from the NPCR and includes 96% of all prostate cancer diagnosed and treated in Sweden. It represents one of the most comprehensive sources of information that exists on the disease. Additionally, patients in Sweden are treated in much the same way as U.S. patients, and the hormone therapies are also the same, which makes the results from this study highly applicable to our patients, although incident rates of DVT and PE may differ in the U.S. Some interesting findings from this study are that prostate cancer itself led to higher rates of DVT and PE, and that HT was associated with even higher rates, especially for younger men on HT. This information confirms and validates other prior studies that have shown a relationship between prostate cancer and thromboembolic disease. We should be aware of this risk, plan for its prevention during surgical interventions, and monitor for it in general, especially in our patients on HT. (Reviewer-Steven E. Canfield, MD).

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Keywords: Prostate Cancer, Thromboembolism

Print Tag: Refer to original journal article
Is Flexible Ureteroscopy the Best Option for Managing Caliceal Diverticula Stones?

Efficacy of Flexible Ureterorenoscopy With Holmium Laser in the Management of Stone-Bearing Caliceal Diverticula.

Sejiny M, Al-Qahtani S, et al:

J Endourol 2010; 24 (June): 961-967

According to this study, flexible ureteroscopy with holmium laser is an effective, minimally-invasive technique that may be the best option in managing caliceal diverticula stones, especially in shockwave lithotripsy failures.

**Objective:** To evaluate outcomes of flexible ureteroscopy with holmium laser lithotripsy in managing stone-bearing caliceal diverticula.

**Design:** Retrospective chart review.

**Participants:** 38 patients undergoing ureteroscopy for symptomatic caliceal diverticular stones.

**Methods:** Flexible ureteroscopy was used in 30 patients after failure of shockwave lithotripsy. The procedure was repeated twice for 2 patients. Follow-up ranged from 4 to 6 weeks with radiography of plain film, ultrasound, or CT scan.

**Results:** 22 women and 16 men were treated. Twenty-one (55%) patients were rendered stone free, 10 (26%) had clinically insignificant residual fragments (<4 mm), and significant residual fragments were found in 7 (18%) patients. Success rate was considered as 82% when accounting for stone free and clinically insignificant stones. Thirty-four (90%) patients were symptom free after the procedure.

**Conclusions:** Flexible ureteroscopy with holmium laser is an effective, minimally-invasive technique that may be the best option in managing caliceal diverticula stones, especially in shockwave lithotripsy failures.

**Reviewer's Comments:** The authors of this manuscript have a very large and impressive series of caliceal diverticular stones managed with flexible ureteroscopy and laser lithotripsy. The radiographic success (accounting for stones <4 mm) was 82% and symptom success was 90%. The conclusion is that flexible ureteroscopy may be the best option for caliceal diverticula stones, especially in shockwave lithotripsy failures. I applaud the authors' technique, since in my practice I have not had nearly as high of a success rate for caliceal diverticular stones treated with ureteroscopy. I find that the neck of the diverticulum is often difficult to successfully locate and/or open enough to enter. Even once inside a diverticulum, the angle is usually restrictive and it is difficult to access all the stones that are present. The other main disadvantage is the inability to ablate the diverticulum. These patients are likely to create more stones and I would argue that <4 mm fragments probably are not "clinically insignificant" in this patient population. It is not a bad option to try, but a percutaneous approach is still considered the standard definitive treatment for caliceal diverticula stones and the diverticula themselves. (Reviewer-David A. Duchene, MD).

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Keywords: Ureteroscopy, Caliceal Diverticula, Laser Lithotripsy

Print Tag: Refer to original journal article
Objective: To analyze early outcomes and complications after single tract versus multiple tracts percutaneous nephrolithotomy (PCNL) in the management of staghorn calculi.

Design: Retrospective chart review.

Participants: 413 patients with staghorn calculi (223 [54%] with complete and 190 [46%] partial).

Methods: Group 1 consisted of 224 (59%) who had single access. Multiple accesses were necessary in 169 (41%) in group 2. Both groups were compared in terms of perioperative and postoperative outcomes. Patients and stone-related factors affecting the number of access sites performed were analyzed.

Results: The mean number of access sites in group 2 was 2.42 (2 to 6). Durations of fluoroscopy screening time and operative time were significantly longer in group 2. Supracostal access was required 31% of the time in group 2 and only 7% of the time in group 1. Stone-free success (<5 mm fragments) was achieved in 70.0% in group 1 and in 81.1% in group 2 after 1 session of PCNL ($P=0.012$). The most common complication in both groups was bleeding that required transfusion in 28% of group 2 versus 14% of group 1 ($P<0.0001$). The changes in pre- and postoperative creatinine were significant in both groups in short-term, but did not show a significant difference between the 2 groups. Previous open surgery was the only statistically significant preoperative characteristic predicting the need for multiple access sites.

Conclusions: The impact of PCNL using single or multiple access sites on renal function is similar and of temporary nature. PCNL with multiple access tracts is a successful alternative technique to single access with increased complication rates and higher stone-free rates.

Reviewer's Comments: This article is a retrospective review of a large series of PCNL with single versus multiple access tracts. A strong selection bias is included for single versus multiple access PCNL in the study by its design. Not surprisingly, multiple access PCNL has longer fluoroscopy duration, longer operating department time, longer hospital stay, longer time of indwelling nephrostomy tubes, and higher complications. However, the multiple access PCNLs did not show a significantly different effect on renal function and had a higher stone-free success rate. What the reader should take from this study is that large, complex stones are best served with obtaining additional accesses as needed to clear the stone burden, but it does lead to higher complications of which the patient should be made aware. (Reviewer-David A. Duchene, MD).

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Keywords: Percutaneous Nephrolithotomy, Staghorn Calculi, Complications

Print Tag: Refer to original journal article
Complications of Laparoscopic and Percutaneous Renal Cryoablation

Complications of Laparoscopic and Percutaneous Renal Cryoablation in a Tertiary Referral Center.
Tsivian M, Chen VH, et al:
Eur Urol 2010; 58 (1): 142-148

Percutaneous cryoablation may be associated with a higher rate of complications, although most of these are mild and transient. However, on multivariate analysis, the chosen ablative approach is not associated with the risk of complications.

Objective: To report on postoperative complications associated with laparoscopic cryoablation (LCA) and percutaneous cryoablation (PCA) in a single tertiary center experience.

Design: Retrospective study.

Participants: 72 patients underwent laparoscopic renal cryoablation by the urology service and 123 patients underwent percutaneous cryoablation by the interventional radiology service at a large tertiary referral center.

Methods: Posterior lesions were predominantly treated percutaneously while anterior and medial lesions were treated laparoscopically. Both techniques involved a dual freeze-thaw cycle. The percutaneous procedures were performed under conscious sedation. There were no significant differences in demographics between the PCA and LCA groups.

Results: The median tumor size was 2.0 cm in the laparoscopic group and 2.2 cm in the percutaneous group ($P = 0.11$). Ten patients (14%) experienced complications in the laparoscopic group and 26 patients (21%) had complications in the percutaneous group ($P = 0.25$). Clavien grade 1 and 2 complications were more common in the PCA group and nearly half of these were flank pain or paresthesia. Two percutaneous procedures resulted in incomplete ablation requiring a repeat cryoablation treatment. Clavien grade 3 and 4 complications were more frequent in the LCA group. One laparoscopic procedure was converted to open. In multivariate analysis, older patients had a lower risk of complications presumably due to less pain perception. Also, a higher body mass index was associated with a decreased chance of complications likely due to intervening fatty tissue between the tumor and adjacent structures.

Conclusions: LCA and PCA, although minimally invasive, are not void of complications. Most of the complications encountered are mild; however, severe (grade 3 or 4) events may occur in up to 3.6% of patients. PCA may be associated with a higher rate of complications, although most of these are mild and transient. However, on multivariate analysis, the chosen ablative approach (laparoscopic or percutaneous) is not associated with the risk of complications.

Reviewer's Comments: This study showed no statistical difference between the complication rates of LCA versus PCA cryoablation. However, more complications occurred in percutaneous procedures and the more challenging tumors located medially were approached laparoscopically. The laparoscopic approach has a role in cryoablation for these centrally located tumors at no higher risk of complications. (Reviewer-Kyle J. Weld, MD).

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Keywords: Renal Neoplasm, Laparoscopy, Cryoablation, Complications

Print Tag: Refer to original journal article
Age Should Not Be an Excuse for Not Using Partial Nephrectomy

Complications After Radical and Partial Nephrectomy as a Function of Age.

Lowrance WT, Yee DS, et al:

J Urol 2010; 183 (May): 1725-1730

Elderly patients do not experience a proportionally higher complication rate, longer operative time, or increased estimated blood loss from partial nephrectomy than younger patients.

**Objective:** To determine whether the association of age and perioperative outcomes differs between nephrectomy types.

**Design/Participants:** Retrospective series of 651 patients who underwent radical nephrectomy and 1061 patients who underwent partial nephrectomy.

**Methods:** The authors did not distinguish between open or laparoscopic approaches. Using multivariable methods, the authors determined whether the relationship between age and risk of postoperative complications, estimated blood loss, or operative time differed by nephrectomy type.

**Results:** 305 (18%) patients had a complication within 90 days of surgery. Overall, 17% had >1 complication. Patients who underwent radical nephrectomy had a complication rate of 14% compared to patients who underwent partial nephrectomy with a complication rate of 20%. Urinary fistula was more common in the partial nephrectomy group and accounts for most of the difference. There was no evidence that age was significantly associated with estimated blood loss or operative time. On univariate and multivariate analyses, a statistically significant association between age and risk of complications was noted regardless of procedure type ($P = 0.009$).

**Conclusions:** Age alone should not be considered a reason for not offering partial nephrectomy as a treatment option.

**Reviewer’s Comments:** Given that partial nephrectomy offers equivalent cancer control to radical nephrectomy with the advantage of preserving renal function, partial nephrectomy is emerging as the preferred treatment option for renal tumors <7 cm. Several recent articles have underscored the importance of nephron preservation in overall lifelong morbidity and mortality. In fact, the latest AUA guidelines list partial nephrectomy as standard for similar sized tumors. Still, many urologists are hesitant to perform partial nephrectomies for elderly patients because of a fear of complications. This article shows a higher complication rate for partial nephrectomies, but the difference in complication rates between partial and radical nephrectomies does not increase with age. Urologists should not exclude elderly patients from partial nephrectomy simply because of their age. (Reviewer-Kyle J. Weld, MD).

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Keywords: Kidney Neoplasms, Nephrectomy, Postoperative Complications

Print Tag: Refer to original journal article
The artificial urinary sphincter is an effective and durable treatment option for female stress urinary incontinence. This paper seems to indicate that the best outcome is achieved in younger women.

**Objective:** To describe the outcomes of artificial urinary sphincter (AUS) placement in female patients for the treatment of stress urinary incontinence (SUI).

**Design/Methods:** All patients implanted with an artificial urinary sphincter in the past 25 years at a single hospital were identified using a urology database. Patients had a history, physical examination, routine blood and urine tests, urodynamic assessments, and an upper tract study prior to placement of an AUS. Patients were considered candidates for an artificial sphincter if they had significant intrinsic sphincter insufficiency (abdominal leak-point pressure <60 cm water). All procedures were performed through an abdominal approach. A 61- to 70-cm pressure balloon was routinely used and deactivated for 6 weeks. Outcome measures included continence status, complications, and duration and cause of AUS failure. Patients were described as continent if there was no pad usage after AUS insertion.

**Results:** 47 consecutive female patients with a mean age of 51 years received an artificial sphincter for the treatment of urinary incontinence. The mean range of follow-up was 13.5 years. No patients were lost to follow-up. Immediate postoperative complications included 2 wound infections. Average blood loss was <50 mL. Of the 47 AUS implanted, 83% remained in situ. The artificial sphincters that were removed were done so for either infection or erosion. Of women in whom the artificial sphincter was still in situ, the continence rate with no pad usage was 59% with the artificial sphincter only. This continence rate increased to 85% when concurrent clean intermittent self-catheterization was performed with or without anticholinergics.

**Conclusions:** AUS is an effective and durable treatment option for female SUI. In properly selected women, high continence rates can be achieved. Most patients maintained satisfactory long-term continence rates despite revision surgery.

**Reviewer's Comments:** Although few indications still exist for the placement of the AUS, this report demonstrates that if proper selection is made, the artificial sphincter can be a suitable treatment option for those females with urinary incontinence secondary to intrinsic sphincter deficiency. (Reviewer-Karl J. Kreder, MD).

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Keywords: Artificial Urinary Sphincter, Female Urinary Incontinence, Patient Satisfaction

Print Tag: Refer to original journal article
TVT-O and TVT-Secur -- Which Is Best to Treat SUI?

Efficacy and Safety of TVT-O and TVT-Secur in the Treatment of Female Stress Urinary Incontinence: 1-Year Follow-Up.

Tommaselli GA, Di Carlo C, et al:

Int Urogynecol J Pelvic Floor Dysfunct 2010; 21 (October): 1211-1217

Both tension-free vaginal tape-obturator and TVT-Secur appear to be safe and effective in the treatment of stress urinary incontinence.

**Objective:** To compare between the tension-free vaginal tape-obturator (TVT-O), and the TVT-Secur techniques.

**Design/Methods:** This is a prospective study that randomized 84 patients to receive the TVT-O procedure or the TVT-Secur procedure. All patients underwent evaluation with a history, physical, urodynamic testing, and post-void residual urine volume. Patients completed International Consultation on Incontinence Questionnaire-short form and the King's Health Questionnaire. Subjects in the study were followed at 1, 6, and 12 months following the procedure. The primary outcome measure was the objective cure rate of stress urinary incontinence. Secondary outcomes were duration of the procedure, duration of hospitalization, postoperative and midterm complications, blood loss, post-void residuals, subjective pain level, and satisfaction level.

**Results:** 9 patients did not complete the follow-up schedule and were excluded from the study, leaving 38 patients in the TVT-O group and 37 in the TVT-Secur group. The operative time for TVT-Secur was lower compared to the TVT-O group -- 7.1 minutes versus 11.3 minutes. The estimated blood loss was not different between procedures, although patients from the TVT-Secur group tended to have a higher percentage of moderate blood loss. One case of severe blood loss was observed in the TVT-Secur group. No differences were observed in the cure rates of the 2 procedures, with 81.6% in the TVT-O group and 83.8% in the TVT-Secur group considered cured. The overall postoperative complication rates were 15.8% for the TVT-O group and 8.1% for the TVT-Secur group (p=NS). The most frequent postoperative complications were urinary retention (5.2%), transient leg pain (7.9%), and de novo urgency (5.4%). One case of vaginal tape erosion was observed in the TVT-Secur group (2.7%).

**Conclusions:** Both techniques seem to be effective and safe, with a low incidence of complications in both groups.

**Reviewer's Comments:** In this prospective study, both procedures proved to be safe and effective with similar cure rates and no difference in intraoperative and postoperative complication. The major shortcoming in this study is the small number of cases in the groups. (Reviewer-Karl J. Kreder, MD).

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Keywords: Urinary Stress Incontinence, TVT-O, TVT-Secur, Single-Incision Sling, Efficacy, Safety

Print Tag: Refer to original journal article
The U.S. has large areas that are either overserved or underserved by male infertility specialists based on the location of assisted reproductive technology centers.

**Background:** Of all sexually active couples, 12% to 15% are infertile. A male factor can be found in 50% of couple’s with infertility, but access to male reproductive specialists is limited.

**Objective:** To describe the prevalence and location/proximity of male infertility specialists compared to assisted reproductive technology (ART) centers.

**Design:** Cross-sectional study.

**Methods:** Data sources included the 2000 U.S. Census Bureau, the 2005 Assisted Reproductive Technology registry, and a 2005 male infertility specialty society directory.

**Results:** 390 ART centers and 197 male infertility specialists were identified. States with best male access to fertility services (within 60 minutes driving time) were located in the Northeast and Southern California. The Midwest and Northwest has the least access to male fertility services. California, Texas, and Florida had the highest male population in their reproductive years (20 to 49 years). The most underserved states by male specialists (males in reproductive years/male specialist) included Oregon, Tennessee, and Oklahoma. Thirteen states had no male infertility specialist. New York (27), California (20), and Florida (13) had the highest number of male infertility specialists per state.

**Conclusions:** The United States has large areas that are either overserved or underserved by male infertility specialists based on the location of ART centers.

**Reviewer's Comments:** This is an important descriptive study that gives specific detail on male infertility services. The fact that 13 states have no listed male infertility specialist is both revealing and alarming. This underscores the importance of educational focus on male infertility services in urology residency training programs. In addition, other sub-specialty focus areas in urology such as urethral reconstruction would also benefit from similar descriptive data. As the U.S. population continues to grow, baby boomer urologists retire, and residency programs continue to produce relatively small numbers of graduates, access to quality urologic care will become increasingly difficult. Residency programs with self-contained mini-fellowships may be a potential, partial solution to this problem. Future urology graduates can use data from this study or similar studies for their respective fields of interest to ensure high patient volume. (Reviewer-Tobias S. Kohler, MD, MPH).

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Keywords: ART Centers, Service Areas, Male Infertility Specialists

Print Tag: Refer to original journal article
Preoperative counseling for stricture repair must include the possibility of no change, improvement, or worsening of ejaculatory function.

**Background:** Normal ejaculation is a complex event that requires a coordinated contraction of several organs under autonomic and somatic nervous control. The urethra plays a key role in expulsion of semen by coordinated contraction of the bulbocavernosus muscles. Men with urethral stricture disease often have concomitant ejaculatory dysfunction. Repair of the stricture may improve ejaculation with the increase in caliber of the urethra, but damage of the bulbocavernosus muscle could lead to further disruption of normal ejaculation.

**Objective:** To evaluate the effect of primary anterior urethroplasty on bulbocavernosus function and to prospectively evaluate ejaculatory function.

**Design/Methods:** This was a prospective study for men undergoing surgical repair for stricture. A preoperative validated Male Sexual Health Questionnaire (MSHQ) was utilized to stratify the men into mild, moderate, or severe ejaculatory dysfunction. Fifty-nine men who underwent urethroplasty were evaluated for inclusion in the study; 43 were included, with 16 being excluded due to incomplete preoperative questionnaires, no postoperative sexual activity, or 2-stage urethral repair.

**Results:** All men reported pain and low volume with ejaculation preoperatively, with 91% also reporting poor vigor. After surgery 70%/19%/11% of men reported stable/increased/decreased ejaculatory function, respectively. Men with decreased MSHQ scores postoperatively included 4 with bulbocavernosus strictures and 1 with a penile stricture. These men reported decreased pleasure, volume, frequency, and vigor after stricture repair. For the men that reported an increase in ejaculatory function, the most significant improvement was decreased ejaculatory pain followed by increased volume and vigor.

**Conclusions:** Urethral reconstructive surgery results in no reported change in ejaculatory function in the majority of men. It is unclear whether the increased caliber of the urethra negates the effect of possible damage to the bulbocavernosus muscles.

**Reviewer’s Comments:** This is a nice prospective study that attempts to test the hypothesis that bulbocavernosus injury may lead to decreased ejaculatory function following primary anterior urethroplasty. In the men with decreased ejaculatory function after surgery, 4 of 5 had bulbar urethral stricture that was repaired with a perineal incision. Perhaps this may lead to more significant trauma to the bulbocavernosus muscle. Although the study’s questionnaire-based design cannot evaluate the true effect of bulbocavernosus injury, it demonstrates conclusively that the majority of men (89%) perceive stable or improved ejaculatory function. Preoperative counseling for stricture repair must include the possibility of no change, improvement, or worsening of ejaculatory function. (Reviewer-Tobias S. Kohler, MD, MPH).