Nearly Half of Men With Prostate Cancer With Less Than 10-Year Life Expectancy Treated Aggressively

Variation in Treatment Associated With Life Expectancy in a Population-Based Cohort of Men With Early-Stage Prostate Cancer.

Daskivich TJ, Lai J, et al:

Cancer 2014; (July 17): epub ahead of print

Older men with a life expectancy of <10 years are often treated aggressively with either radiation therapy or radical prostatectomy for their low- or intermediate-risk prostate cancer.

Background: Major clinical guideline committees recommend conservative management of low-risk prostate cancer in men with <10-year life expectancy.

Objective: To identify prostate cancer treatment patterns among various age groups of men and life expectancy of <10 years.


Participants: 96,032 men aged ≥66 years with T1 or T2 disease and Gleason score ≤7.

Methods: Other-cause mortality was calculated using the cumulative incidence function. Prostate cancer treatment patterns and mortality were examined according to age and Charlson comorbidity strata. Aggressive treatment for prostate cancer was defined as either radical prostatectomy or definitive radiation therapy.

Results: Life expectancy was <10 years for 52% of the cohort. Of those 50,049 men with life expectancy of <10 years, nearly half underwent aggressive treatment for their prostate cancer. Nearly 68% of men aged 66 to 69 years with ≥2 Charlson comorbidities underwent aggressive treatment. Surprisingly, 24% of men aged ≥80 years also underwent aggressive treatment for their prostate cancer. The majority of these aggressive treatments were classified as radiation therapy.

Conclusions: Older men with a life expectancy of <10 years are often treated aggressively with either radiation therapy or radical prostatectomy for their low- or intermediate-risk prostate cancer.

Reviewer's Comments: Major clinical guideline committees, such as the National Comprehensive Cancer Network or American Urological Association, recommend conservative management of low-risk prostate cancer in men with <10-year life expectancy. Furthermore, those same guideline committees also recommend conservative treatment for men with very low- and low-risk prostate cancer regardless of age or comorbidity status. Unfortunately, many older men and those with a limited life expectancy commonly undergo aggressive treatment for their prostate cancer with either radiation therapy or surgery. Such aggressive treatments expose them to side effects while they may have little to gain in terms of oncologic benefit from their treatment. Active surveillance is becoming the preferred treatment approach for men with very low-risk prostate cancer and for older men with a limited life expectancy. This study is limited in that it only includes patients from 1991 through 2007. It has really only been in the past 3 to 5 years that active surveillance has become a primary treatment approach for men with low-risk prostate cancer. Regardless of the limitations, the findings of this study are sobering and point out that we, as urologists and radiation oncologists, need to carefully consider the patient's age and their comorbidity status before recommending a prostate cancer treatment plan. Many patients, especially older and sicker ones, may be better served with a conservative treatment approach utilizing active surveillance or watchful waiting. (Reviewer-William T. Lowrance, MD, MPH).

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Keywords: Treatment, Life Expectancy

Print Tag: Refer to original journal article
Neoadjuvant Chemotherapy for Bladder Cancer Well Tolerated

Accelerated Methotrexate, Vinblastine, Doxorubicin, and Cisplatin Is Safe, Effective, and Efficient Neoadjuvant Treatment for Muscle-Invasive Bladder Cancer: Results of a Multicenter Phase II Study With Molecular Correlates of Response and Toxicity.

Plimack ER, Hoffman-Censits JH, et al:

J Clin Oncol 2014; 32 (June 20): 1895-1901

In patients with muscle-invasive bladder cancer, dose-dense MVAC given over a 6-week period produced similar pT0 rates as compared to traditional 12-week courses of MVAC.

Background: Neoadjuvant chemotherapy when combined with radical cystectomy has been shown to provide a survival benefit for patients with muscle-invasive bladder cancer over radical cystectomy alone. Despite this survival advantage, the utilization of neoadjuvant chemotherapy has been low in these bladder cancer patients.

Objective: To determine if accelerated MVAC (methotrexate, vinblastine, doxorubicin, and cisplatin) is safe, has a pT0 rate similar to traditional MVAC, and leads to a shorter time of surgery.

Design: Multicenter, prospective phase II study.

Participants: 45 patients with clinical stage T2-T4, N0, or N1 bladder cancer.

Methods: The primary end point was pT0 rate. Using a 2-stage Simon design, the pT0 rate for the study patients undergoing 6 weeks of dose-dense MVAC was compared to historical controls. Additionally, telomere length and p53 mutation status were correlated with response to accelerated MVAC.

Results: 40 of the 45 accrued patients were evaluable. In total, 15 patients (38%) were found to be pT0 at radical cystectomy. An additional 6 patients were downstaged to non–muscle-invasive disease. There were no treatment-related deaths. There were 9 grade 4 toxicities. Overall, 9.7 weeks was the median time from the beginning of dose-dense MVAC until radical cystectomy. Telomere length and p53 mutation status were not correlated with treatment response.

Conclusions: Dose-dense MVAC given over a 6-week period produced similar pT0 rates as compared to traditional 12-week courses of MVAC. The accelerated MVAC regimen was well tolerated, and patients proceed on to radical cystectomy at a median time of 9.7 weeks from the start of chemotherapy.

Reviewer’s Comments: Neoadjuvant cisplatin-based chemotherapy provides a clinically and statistically significant survival benefit for patients with localized muscle-invasive bladder cancer. This has been known since Dr Grossman’s SWOG trial was published in the New England Journal of Medicine in 2003. Despite this knowledge, the uptake in utilization of neoadjuvant chemotherapy in bladder cancer has been poor. This phase II study gives further evidence that accelerated or dose-dense MVAC is well tolerated and provides a nearly 40% pT0 rate at radical cystectomy. In our practice at the Huntsman Cancer Institute at the University of Utah, we too utilize dose-dense MVAC neoadjuvant chemotherapy for many of our muscle-invasive bladder cancer patients. We likewise have found a nearly 35% pT0 rate. As with this study, our experience has also been that patients tolerate the chemotherapy well and it does not delay them moving on to radical cystectomy. This study provides more evidence that utilization of cisplatin-based chemotherapy combined with radical cystectomy is the current standard of care for patients with localized, muscle-invasive bladder cancer. (Reviewer-William T. Lowrance, MD, MPH).

© 2014, Oakstone Publishing, LLC

Keywords: Cystectomy, Neoadjuvant Chemotherapy

Print Tag: Refer to original journal article
Vasectomy Possibly Associated With High-Grade Prostate Cancer Risk

Vasectomy and Risk of Aggressive Prostate Cancer: A 24-Year Follow-Up Study.


J Clin Oncol 2014; (July 7): epub ahead of print

Men undergoing vasectomy may have a slight increased risk for high-grade or lethal prostate cancer.

Background: It is unknown whether vasectomy, a type of contraception, increases a man's risk for prostate cancer. Prior studies looking to examine this association have shown conflicting results.

Objective: To examine the association between vasectomy and a man's risk for prostate cancer.

Design: Prospective study of U.S. male health professionals.

Participants: 49,405 men aged 40 to 75 years in 1986.

Methods: Multivariate Cox regression analyses were used to estimate the impact of vasectomy on one's relative risk of prostate cancer (overall and specifically for high-grade and lethal disease).

Results: After 24 years of follow-up 6023 patients were diagnosed with prostate cancer. Of those, 811 were lethal prostate cancer cases. Of the study cohort, 12,321 men (25%) underwent a vasectomy. There was a slight increase in the relative risk of prostate cancer for men who had undergone a vasectomy as compared with those who had not (RR, 1.10; 95% CI, 1.04 to 1.17). There was an even greater association between vasectomy and high-grade prostate cancer and lethal prostate cancer (RR, 1.22 and 1.19, respectively). There was no apparent association between vasectomy and low-grade or localized prostate cancer.

Conclusions: Vasectomy may be associated with a slight increased risk of high-grade or lethal prostate cancer.

Reviewer's Comments: Prior observational studies have looked at whether vasectomy increases a man's risk of prostate cancer. The results of those various studies have been conflicting. These authors expand on previous work utilizing the Health Professionals Follow-Up Study. With 24 years of follow-up, they report a slightly increased risk in overall prostate cancer and high-grade or lethal disease in men who had undergone vasectomy. This study certainly adds to the literature on this topic, but it in no way definitively answers the question. One should pay close attention to the 95% confidence intervals given for the relative risk estimates in the study. The lower ends of those confidence intervals are very close to the null. Furthermore, we must remember that the incidence of lethal prostate cancer was 1.6%. Therefore, the relative risks from this study translate into quite small changes in absolute risk. (Reviewer-William T. Lowrance, MD, MPH).

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Keywords: Vasectomy, Prostate Cancer

Print Tag: Refer to original journal article
Retrograde URS With Continent Urinary Diversion Feasible But Challenging

Retrograde Ureteroscopy Via a Continent Urinary Diversion: Surgical Techniques and Common Pitfalls.
Rivera M, Krambeck A:
J Endourol 2014; 28 (July): 763-766

For the majority of patients who need endourologic manipulation of the upper tracts after a continent urinary diversion, an antegrade approach may be preferred over a retrograde approach.

**Objective:** To evaluate experience with retrograde ureteroscopy (URS) in patients with continent urinary diversions.

**Design:** Retrospective chart review of 11-year experience.

**Participants/Methods:** A retrospective review was performed of 12 patients with a continent urinary diversion necessitating URS for diagnostic or therapeutic purposes from 2002 to 2013.

**Results:** 77% of the procedures were performed for diagnostic purposes, while 1 patient underwent URS for a stricture and 2 for stones. The procedure was successful in 59% of patients, with 1 patient requiring the antegrade placement of a guidewire to facilitate identification of the ureteroenteric anastomosis. Angulation, tortuosity, and length of the afferent limb were some of the causes of failure.

**Conclusions:** Retrograde URS with a continent urinary diversion is feasible but challenging.

**Reviewer's Comments:** This is a report from a high-volume tertiary stone referral center. Of note, they treated only 1 patient per year on average with a continent diversion with a retrograde ureteroscopic approach. It is clear that these patients were carefully selected, and therefore some of the techniques and outcomes described in the paper may not translate to broad applications in the general patient with a continent diversion. Unfortunately, the authors do not provide a denominator, ie, how many patients during this same time period underwent an antegrade approach. The majority of procedures were diagnostic, where perhaps the risk/benefit ratio of a percutaneous antegrade approach favored a trial of retrograde approach. One might propose that, even for a diagnostic approach, if the patient has sufficient hydronephrosis, an antegrade approach may be preferable to both decompress the system and maximize the likelihood of a successful outcome. Often, rise in creatinine or concerns for urinary tract infection or sepsis will drive the decision to first place a nephrostomy tube and then proceed with a staged antegrade approach. (Reviewer-Manoj Monga, MD, FACS).

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Keywords: Ureteroscopy, Urinary Diversion

Print Tag: Refer to original journal article
24-Hour Urine Stone Risk Higher With Aging

Age-Related Changes in 24-Hour Urine Composition Must Be Considered in the Medical Management of Nephrolithiasis.

Friedlander JI, Moreira DM, et al:

J Endourol 2014; 28 (July): 871-876

Risk of uric acid stones increases with age, driven primarily by a decrease in urinary pH.

**Background:** The age of peak incidence of kidney stones has been increasing.

**Objective:** To examine the relationship between age and 24-hour urine composition.

**Design/Methods:** The authors conducted a retrospective chart review of patients presenting to a tertiary care stone clinic from 2002 to 2012.

**Results:** Elderly stone formers were more likely male (63%) compared to younger stone formers (45%). Elderly stone formers were more likely to have diabetes (24% vs 6%) and/or hypertension (59% vs 13%). The elderly were more likely to be taking potassium citrate (7% vs 1%) and thiazide diuretics (6% vs 3%). The elderly had a higher component of uric acid in their stones. Multivariate analysis controlling for gender, body mass index, comorbidities, and medication use demonstrated that aging was associated with increased urinary citrate and supersaturation for uric acid, while pH, urinary uric acid, creatinine, and supersaturation for calcium oxalate and calcium phosphate decreased. Younger patients were more likely to be taking allopurinol; despite this, urinary uric acid levels were lower in the elderly.

**Conclusions:** Close attention should be placed on modulating the stone risk parameters identified on 24-hour urine collection.

**Reviewer’s Comments:** The authors sought to evaluate the impact of age on 24-hour urine stone risk. Unfortunately, their patient sample is unlikely to be representative of the general population, or even the general kidney stone former, as patients were identified in a tertiary stone center. A population-based evaluation of stone formers and non-stone formers might shed more light on the impact of age on stone risk. Indeed, longitudinal evaluations of individuals as they age would be of great value. As such, the authors included all patients. Had they selected those who were “first-time stone formers” it would have been less likely that the findings would be tainted by prior dietary or medical intervention. Indeed, the elderly were likely to be taking thiazides and potassium citrate, which could dramatically impact the findings of the study. The findings of increased supersaturation of uric acid and decreased pH go hand in hand, and are common findings with the metabolic syndrome. Indeed, as one ages the likelihood of components of the metabolic syndrome developing (obesity, diabetes, hypertension, dyslipidemia, hypercholesterolemia) increases. Why urinary citrate increases is a more intriguing observation. The study demonstrates that special attention should be placed on modulating the urinary pH to decrease the risk of stone disease in the elderly. (Reviewer-Manoj Monga, MD, FACS).

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Keywords: Metabolic Evaluation, Nephrolithiasis

Print Tag: Refer to original journal article
KUB Still Has Value at Predicting SWL Outcome

The Role of Plain Radiography in Predicting Renal Stone Fragmentation by Shockwave Lithotripsy in the Era of Noncontrast Multidetector Computed Tomography.

Hussein A, Anwar A, et al:

J Endourol 2014; 28 (July): 850-853

A stone that is heterogeneous, has an irregular outline, and is less dense than bone on KUB is more likely to fragment with shockwave lithotripsy.

Objective: To evaluate the role of plain KUB in predicting fragmentation with shockwave lithotripsy (SWL).

Design: Retrospective chart review.

Participants: 106 patients with solitary renal pelvis stones undergoing SWL were included. Patients with multiple stones or radiolucent stones were excluded.

Methods: KUB was classified based on density (less than or equal to bone), homogeneity, and outline (smooth or irregular) of the target stone. The transverse process of a lumbar vertebrae or the 12th rib were used as reference points for bone density. Patients were treated with the Siemens Lithostar. Success was determined after 1 SWL session with a maximum of 3000 shocks administered. Stone fragmentation was determined by KUB at 3 months.

Results: Stone fragmentation was less likely if the stone appeared more dense than bone (53% vs 89%), if the stone outline was smooth rather than irregular (57% vs 91%), or if the stone appeared homogeneous (53% vs 91%). For stones with unfavorable characteristics on KUB, CT Hounsfield unit (HU) was helpful to predict successful fragmentation, with those fragmenting having a HU attenuation average of 691 compared to 1462 for those that did not fragment.

Conclusions: CT HU to predict likelihood of stone fragmentation is only needed for smooth, homogeneous stones that appear denser than bone.

Reviewer's Comments: This study has important potential ramifications in the era of cost containment and radiation safety concerns. One could propose a streamlined diagnostic path of ultrasound and KUB as the initial imaging modality. Patients with a small irregular heterogeneous stone that did not appear too dense might proceed directly to SWL. It is unclear how many CT scans this might prevent. Patients with a radiolucent stone would need a CT to confirm stone location and size. Patients with a stone >15 mm would need CT imaging for preoperative planning for a percutaneous nephrolithotomy. Patients with hydronephrosis would undergo a CT to determine the size and location of the presumed ureteral stone. Patients with a small or medium smooth, homogeneous, dense stone on KUB would undergo CT to determine HU density. As such, only a select few would avoid the CT. In addition, the other variable that can impact fragmentation is the skin-to-stone distance. Though the authors report that there was no difference in body mass index between the groups studied, they did not evaluate the skin-to-stone distance as another potential confounder. It would have added to the study had they reported the stone compositions for patients in the 2 groups to see if traditional thinking that calcium phosphate and calcium oxalate monohydrate may be more refractory to SWL held true. (Reviewer-Manoj Monga, MD, FACS).

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Keywords: Imaging, Shockwave, Nephrolithiasis

Print Tag: Refer to original journal article
CT is the modality most widely used in the evaluation of suspected urolithiasis; the lowest use is in emergency departments that care for more children.

**Background:** Medical radiation is a growing concern in the pediatric population, particularly with regard to urolithiasis where patients are likely to undergo repeated radiation exposure with imaging tests.

**Objective:** To characterize imaging practices utilized in children presenting to emergency departments (EDs) with concerns for urolithiasis.

**Methods:** A Nationwide Emergency Department Sample was surveyed from 2006 to 2010 identifying a cohort of patients aged <18 years with suspected urolithiasis. The authors evaluated imaging practices at EDs where ultrasound (US) and computed tomography (CT) were reliably coded for billing. Hospital and patient level factors associated with the use of US versus CT were considered.

**Results:** Nearly 18,100 pediatric visits for urolithiasis in nearly 1200 EDs with reliable data were identified. In total, 11,215 underwent CT, US, or both; 9773 (87%) underwent CT alone. CT use peaked in 2007 and declined thereafter. Multivariate analysis identified increased CT use in EDs where a smaller proportion of patients being evaluated were pediatric, older age, Midwest or Southern location, non-teaching hospital, and a visit on a weekend.

**Conclusions:** CT is the modality most widely used in the evaluation of suspected urolithiasis. The lowest use is in EDs that care for more children. US is used less frequently, regardless of site. Increased awareness of risks and alternatives to CT evaluation is indicated.

**Reviewer's Comments:** The authors assessed a sampling of EDs across the country and found that CT use in the evaluation of children suspected of having urolithiasis is off the charts. Despite the popularity of the ALARA concept, it is being ignored on the front lines. It is not surprising that weekend use of CT is higher given that a technician is generally called in to perform an US, whereas in-house staff are usually adept at performing a CT. Institutions with a higher percentage of pediatric patients are more sensitive to the issues regarding radiation exposure in this vulnerable population. Unfortunately, the vast majority of pediatric patients are presenting to adult institutions for this evaluation. Clearly, there is a great need for education with our ED colleagues regarding US as a first-line imaging modality when stones are suspected, given that it is adequate in the majority of cases without the need for ionizing radiation. (Reviewer-John Gatti, MD).

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Keywords: Emergency Treatment, Pediatrics, X-Ray, Computed Tomography, Ultrasonography, Urolithiasis

Print Tag: Refer to original journal article
Background: Delayed repair of bladder exstrophy is an alternative to immediate postnatal repair and offers potential advantages of greater anesthetic safety, ability to coordinate a team, and flexibility in scheduling. The long-term effect of this delay in closure on bladder development is unknown.

Objective: To describe the outcome of delayed bladder exstrophy on bladder growth in patients who underwent routine delayed exstrophy repair compared with those who underwent immediate postnatal reconstruction.

Design/Methods: A retrospective review was performed over a 12-year span (2000 to 2012). During the first 5 years, children underwent early neonatal closure of bladder exstrophy. After 2005, delayed closure was employed. The 2 groups were compared with regard to bladder capacity between ages 1 and 4 years as measured by cystogram.

Results: 60 children were identified and 45 had adequate records for consideration. In total, 21 had early repair and 24 delayed. Mean bladder volumes were similar in the 2 groups (73 mL in each).

Conclusions: Delayed bladder exstrophy closure does not reduce later bladder capacity when compared to traditional early closure.

Reviewer's Comments: The authors present their experience after transitioning from early closure of bladder exstrophy (at 4 days old) to delayed closure (at 4 months old). They found that bladder capacity by cystogram was nearly identical in the 2 groups at around 21 months of age. All patients underwent osteotomy, but only in the delayed group did 6 of the 24 patients have a combined exstrophy and epispadias repair. This begs the question of whether the increased outlet resistance associated with epispadias repair contributed to a higher bladder capacity, offsetting any reduction in those without epispadias repair but undergoing delayed exstrophy repair. These numbers were too small for subset analysis. There are many compelling reasons to delay closure, and as more studies accumulate suggesting that the bladder fares just as well, this trend will be widely adopted. (Reviewer-John Gatti, MD).

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Keywords: Delayed Closure, Exstrophy Epispadias

Print Tag: Refer to original journal article
No Clear Benefit From Artery Preservation During Varicocelectomy in Adolescents

Impact of Internal Spermatic Artery Preservation During Laparoscopic Varicocelectomy on Recurrence and the Catch-Up Growth Rate in Adolescents.

Kim KS, Lee C, et al:

J Pediatr Urol 2014; 10 (June): 435-440

Artery sparing has a higher failure rate with similar catch-up growth compared to artery ligation in adolescent varicocele repair.

Objective: To evaluate the effect of internal spermatic artery preservation on surgical outcomes with laparoscopic varicocele repair.

Design/Methods: A retrospective review was performed identifying 92 boys who underwent laparoscopic varicocele repair over a 12-year span (1998 to 2011). Age, grade of varicocele, number of veins ligated, outcome measured as clinical recurrence, and subsequent growth were considered. Median follow-up was 21 months.

Results: Artery preservation was performed in 50 boys (54%). The 2 groups were similar with regard to age (mean age, 13 years), varicocele grade, number of veins ligated, and catch-up growth. In the artery preservation group, the incidence of recurrence was significantly higher (22% vs 5%) when compared to the artery ligation group. Of 13 patients with recurrent varicocele, 9 underwent embolization and 1 underwent magnified subinguinal varicocelectomy. None of these demonstrated recurrence or testicular atrophy.

Conclusions: Laparoscopic varicocele with artery sparing has a significantly higher failure rate when compared to artery ligation, with similar rates of catch-up growth.

Reviewer's Comments: The authors performed a retrospective review and found that sparing the internal spermatic artery resulted in a 4 times higher recurrence rate when compared to artery ligation. Lymphatics were spared in all cases, and an effort at artery sparing was also attempted in all cases. All other parameters were similar. Catch-up growth was only assessed in 25 patients, but was similar between groups. Despite these findings, the authors recommend artery preservation until more studies corroborate their findings with semen analysis data, which contradict the data they present. Hydroceles were seen in 2 patients in the artery ligation group, but did not require surgical intervention. At present, there is no compelling reason to spare the spermatic artery at the expense of a higher recurrence rate. (Reviewer-John Gatti, MD).

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Keywords: Adolescent Varicocele Ligation, Spermatic Artery Ligation, Palomo Method

Print Tag: Refer to original journal article
Weight reduction appears to improve urinary incontinence in men.

**Objective:** To assess lifestyle changes as part of weight management and its effect on voiding dysfunction in overweight men with type 2 diabetes.

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

**Methods/Results:** Intensive lifestyle intervention included dietary restrictions as well as caloric restriction and exercise. Interestingly, the prevalence of urinary incontinence in 1 year was reduced by 38% in the lifestyle intervention group versus the control. The overall prevalence of urinary incontinence within groups decreased from 11.3% to 9.0% in the lifestyle group versus 9.7 to an actual increase of 11.6 in the support and education group. There was also an increased odds ratio of incontinence resolution in the dietary modification group and a trend toward reduction of new incontinence in that group as compared to the control group. Nocturia and daytime frequency did not appear to change related to these interventions as compared to the control group. This study actually was stopped because the 2 groups showed no difference in cardiovascular outcomes, which was the primary goal of this study.

**Conclusions:** Lifestyle intervention should be considered for men with diabetes mellitus to control lower urinary tract symptoms (LUTS).

**Reviewer’s Comments:** This is another study assessing the importance of lifestyle improvement on overall LUTS. The relationship between metabolic syndrome, voiding dysfunction, and other lifestyle modifications has been associated with substantial improvements in women. This is a well-done substantive analysis of men showing similar results. It is interesting that frequency and nocturia showed no demonstrable improvement, which may be related to the fact that the groups were not adequately matched as compared to pre-intervention LUTS. Clearly, more work needs to be done in this area; however, the aspect of lifestyle intervention should be brought up with the patient as being an important aspect of LUTS control. (Reviewer-Roger R. Dmochowski, MD, FACS).
Conduit Fixation Does Not Decrease Parastomal Herniation

Anterior Fascial Fixation Does Not Reduce the Parastomal Hernia Rate After Radical Cystectomy and Ileal Conduit.

Pisters AL, Kamat AM, et al:

Urology 2014; 83 (June): 1427-1432

Objective: To assess anterior fascia technique for conduit placement in patients undergoing cystectomy and urinary diversion and to assess patients not undergoing fixation for rates of parastomal herniation.

Design: Retrospective cohort analysis over a 12-year period at a single institution.

Methods/Results: 496 patients were assessed over this period at a single institution. A controlled fascial aperture was created; an ileal conduit was brought to the rectal sheath. Three groups were assessed based upon whether the stoma was fixed to the fascia, with or without fascial fixation, whether there was posterior reinforcement, and no fascial fixation. Outcomes were assessed by physical examination and determination of presence of parastomal hernia was based upon a parastomal perception of mass effect. At a mean follow-up of 16 months (range, 1 to 189 months), the rate was significantly greater in the anterior fascial group (15.3%) as compared to the no fascial fixation group (7.3%). The anterior fascial fixation appeared to be an independent predictor of parastomal herniation. There were no substantive differences between the groups specifically regarding malignancy and/or other preoperative comorbidities.

Conclusions: Anterior fascial fixation did not appear to reduce parastomal herniation, and the authors felt that this should be avoided in patients undergoing cystectomy urinary diversion.

Reviewer's Comments: Parastomal herniation continues to be a substantive adverse event after a urinary diversion utilizing either ileal conduit diversion and/or catheterizable stomas. Prior techniques have been proposed, including the use of either anterior and/or posterior fascial fixation. Unfortunately, these methods do not appear to reduce the overall rate of parastomal herniation and the authors concluded that this should be abandoned. Unfortunately, we have very few other methods for stomal stabilization. Methods include parastomal mesh placement as well as other alternative suture placement techniques, none of which appear to be robust enough in all patients. Part of the concern related to parastomal herniation may indeed be related to altered healing in this particularly at-risk population (that being the population undergoing surgery for either malignancy and/or neurogenic disease). A prospective assessment might best answer this question in a multi-institutional group. (Reviewer-Roger R. Dmochowski, MD, FACS).

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Keywords: Erectile Dysfunction, Penile Prosthesis, Penile Implantation, Infection, Checklist

Print Tag: Refer to original journal article
Structured Checklist Improves Outcomes in Prosthetic Surgery

Use of a Preoperative Checklist Reduces Risk of Penile Prosthesis Infection.

Katz BF, Gaunay GS, et al:

J Urol 2014; 192 (July): 130-135

Structured approaches to complicated health care delivery, including prosthetic implants, improves outcomes.

Objective: To assess whether the use of a mandatory checklist of preoperative preparations will reduce the risk of prosthetic infection after identification of an ongoing problem.

Design: Combination of prospective/retrospective cohort assessment with this specific analysis of comparator groups across baseline, outbreak, and intervention periods.

Methods: The study represents a forward looking and retrospective assessment of experience with penile prosthesis surgery. The authors identified a period of increased infections related to prosthetic surgical implant. They compared this to a baseline period and then a subsequent prospective intervention period. A variety of methodologic changes in care were instituted, and a checklist at the time of surgery was established to assure compliance with the established checklists. Components of the checklist included a urine culture obtained prior to surgery (within 30 days) showing no growth, adequate glucose control as demonstrated by hemoglobin A1c of ≤10%, preoperative night before surgery scrubbed with chlorhexidine, intravenous antibiotic control, skin preparation with clipping and not shaving, 10-minute scrub prior to surgery, maintenance at zero field, continuous irrigation with bacterial/static agents during surgery, and mandated surgical hand preparation.

Results: In the 3 comparative periods at baseline, 2.9% of penile prosthetic devices were infected as compared to 54.5% during the outbreak and 0% after institution of the checklist. Outbreak organisms included a variety of skin organisms as well as anterior bacterial species.

Conclusions: Utilizing strict systems control, a decrease in penile prosthesis infections was noted after institution of a checklist.

Reviewer's Comments: This paper calls into point the importance of the assessment of surgical practice, in this case, around surgical prosthetic infection, which really applies to all surgical procedures, including urologic procedures. The checklist really is the end control of a systems management method that clearly improved outcomes. The title of this paper is a bit of a misnomer in that the preoperative checklist is the final assessment. In reality, the authors report on improvement in practice utilizing systems control with standardization of protocols regarding a variety of aspects of preoperative preparation, and actually led to improvement in outcomes. There has been a lot of emphasis on surgical checklists and the importance of these, and they are very important as a "failsafe" mechanism to assess compliance with the systems. The emphasis on systems control, however, really implies that a formal analysis of all aspects of preoperative preparation be performed, not the least of which is patient engagement and informed consent. (Reviewer-Roger R. Dmochowski, MD, FACS).

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Keywords: Erectile Dysfunction, Penile Prosthesis, Penile Implantation, Infection, Checklist

Print Tag: Refer to original journal article
Acquired Premature Ejaculation, Lifelong Premature Ejaculation Have Important Differences


Serefoglu EC, McMahon CG, et al:

J Sex Med 2014; 11 (June): 1423-1441

Men with acquired premature ejaculation have longer intravaginal ejaculation latency time compared to men with lifelong premature ejaculation.

Discussion: Men with acquired premature ejaculation tend to be older, have higher incidences of concomitant erectile dysfunction, and higher incidences of comorbid disease and cardiovascular risk factors yet have a longer intravaginal ejaculation latency time (IVELT) compared to men with lifelong premature ejaculation. An IVELT of 3 minutes was identified as a valid cutoff for diagnosing acquired premature ejaculation. The International Society for Sexual Medicine Ad Hoc Committee for the Definition of Premature Ejaculation agreed on a unified definition of acquired and lifelong premature ejaculation as male sexual dysfunction characterized by ejaculation that nearly always occurs prior to or within about a minute of vaginal penetration from the first sexual experience (lifelong premature ejaculation) or a clinically significant and bothersome reduction in IVELT of <3 minutes (acquired premature ejaculation), as well as the inability to delay ejaculation on all or nearly all penetrations and negative personal consequences, such as distress, bother, frustration, or avoidance.

Conclusions: The unified definition of lifelong and acquired premature ejaculation represents an evidence-based definition for these conditions.

Reviewer's Comments: This unified definition will be helpful for clinicians to identify norms of ejaculation and what may constitute lifelong or acquired premature ejaculation. This should reduce errors in diagnosis. The definition does include a degree of diagnostic conservatism and flexibility, as this will provide a realistic figure for the prevalence of the dysfunction, help establish premature ejaculation as a bona fide sexual dysfunction rather than a lifestyle condition, and help to ensure greater confidence in the efficacy of new treatments. The inability to delay ejaculation on all or nearly all penetrations and negative personal consequences, such as distress, bother, frustration, or avoidance because of this, remains the mainstay of the diagnosis. (Reviewer- Kevin T. McVary, MD, FACS).

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Keywords: Premature Ejaculation, Erectile Dysfunction

Print Tag: Refer to original journal article
Does Penile Androgen Receptor and Nerve Density Change Following Exposure to 5ARI?

Immunohistochemical Evaluation of Androgen Receptor and Nerve Structure Density in Human Prepuce From Patients With Persistent Sexual Side Effects After Finasteride Use for Androgenetic Alopecia.

Di Loreto C, La Marra F, et al:

PLoS One 2014; 9 (June 24): e100237

Modulation of androgen receptors might be implicated in the long-term effects of finasteride use.

**Background:** Finasteride is an inhibitor 5-α-reductase (5ARI) and is used for both benign prostatic hyperplasia and male androgenic alopecia (AGA). The side effects include sexual dysfunction, infertility, and loss of libido. Some reports allude to persistence in a few men. The molecular events inducing this putative persistent sexual dysfunction are therefore unexplored.

**Objective:** To assess if androgen receptor and nerve density in foreskin specimens were associated with persistent sexual side effects, including a loss of sensitivity in the genital area due to previous 5ARI use in men with AGA.

**Design:** Retrospective case-controlled study.

**Methods:** Cases of 8 males ranging in age from 29 to 43 years reporting sexual side effects following the loss of penis sensitivity over 6 months following discontinuation of finasteride were interviewed and examined. These men underwent a small excision of skin from the prepuce. They also identified 11 healthy male controls of similar ages who underwent a routine circumcision for phimosis who were unexposed to finasteride or dutasteride.

**Results:** Difference in androgen receptor expression and nerve density in different portions of the dermal prepuce were evaluated in groups. The density of nuclear androgen receptor and stroma in epithelial cells was higher in the cases (mean 40.0% and 80.6% of positive cells, respectively) than controls (23.4% and 65.0% of positive cells, \(P =0.02\) and \(P =0.04\), respectively). Conversely, a percentage of vessel smooth muscle cells positive for androgen receptor and the density of nerves were similar in the 2 groups. The ratio of androgen receptor-positive stromal cells percent to serum testosterone concentration was 2-fold higher in cases than in controls (\(P =0.001\)).

**Conclusions:** The authors suggested that modulation of local androgen receptor might be implicated in the long-term effects of finasteride use. This provides possible evidence of an objective molecular difference in penile tissues between patients with long-term adverse sexual effects following finasteride use versus drug-untreated healthy controls.

**Reviewer's Comments:** The unexpected result of androgen receptor upregulation was detectable in the dermis of subjects long after discontinuation of finasteride use on average at least 5 years. Also, hormonal alteration effects of finasteride have been reported to be very reversible and short in the neighborhood of 6 months. The observation that the ratio of androgen receptor-positive stromal cells to total serum testosterone was 2-fold higher in former finasteride users than in controls suggests that former finasteride users have an augmented regulatory feedback loop that normally serves to modulate hormone responses. The study has several limitations, including a small number of men evaluated; impossibility to determine dihydrotestosterone levels locally, which could help interpret results; absence of genetic polymorphism information on the androgen receptor gene; and retrospective design. (Reviewer-Kevin T. McVary, MD, FACS).

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Keywords: Finasteride, 5-α-Reducase Inhibitor, Androgen Receptor, Penis, Nerve Density

Print Tag: Refer to original journal article
No Difference in Sexual Dysfunction With Laparoscopic Vs Open Techniques in Rectal Cancer

Patient-Reported Genitourinary Dysfunction After Laparoscopic and Open Rectal Cancer Surgery in a Randomized Trial (COLOR II).

Andersson J, Abis G, et al:

Br J Surg 2014; 101 (September): 1271-1279

Laparoscopic approaches in rectal cancer do not avoid the impact on sexual dysfunction noted with open techniques.

Background: Sexual dysfunction and voiding dysfunction following rectal cancer is a potential risk. This manuscript reports on the patient-reported outcomes on sexual function and micturition symptoms in a randomized trial of laparoscopic versus open surgery as treatment for rectal carcinoma.

Objective: To report on patient-reported sexual dysfunction and micturition symptoms following a randomized trial of laparoscopic and open surgery for rectal cancer.

Methods: Patients in the COLOR II trial, a randomized trial comparing laparoscopic and open surgery for rectal cancer, were completed within the European Organization for Research and Treatment of Cancer trial using a questionnaire before surgery, and after 4 weeks, and 6, 12, and 24 months assessing the various domains of sexual function, sexual enjoyment, male and female sexual problems, and micturition symptoms.

Results: 617 patients (average age, 67 years) were randomized; 385 completed this phase of the trial. Surgery itself caused a reduction in genitourinary function after 4 weeks, and no significant differences were noted between laparoscopic and open approaches. An improvement in sexual dysfunction was seen within the first year, but some male sexual problems persisted. Before the operation, 64.5% of the men in the laparoscopic group and 55.6% in the open group reported some degree of erectile dysfunction. This increased to 81.1% and 80.5%, respectively, 4 weeks after the surgery and decreased slightly to 76.3% versus 75.5% at 12 months with no significant differences between the groups. Micturition symptoms were less affected than sexual function and gradually improved back to preoperative levels by about 6 months. Adjusting for confounding variables, including exposure to radiation therapy, did not seem to change these results.

Conclusions: Sexual dysfunction is common in patients with rectal cancer, and treatment (including surgery) increased the proportion of patients affected. Interestingly, the laparoscopic approach does not seem to impact this.

Reviewer's Comments: Not surprisingly, there were gender differences, with women showing less interest and less sexual activity than men. The strengths herein include a prospective randomized nature, the population size, the collection of baseline data, and the report over time using validated instruments. Also of note, the low frequency of the case report form reported complications showed a difference between the frequency of problems reported by patients using the validated questionnaire. It is worth mentioning that patient-reported outcomes should be used as a complement to the surgeon's record when measuring postoperative morbidity. Basing complications on adverse event reporting alone grossly underestimates the impact of therapy on patients. (Reviewer-Kevin T. McVary, MD, FACS).

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Keywords: Voiding Dysfunction, Rectal Cancer

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Artificial Sweeteners Could Alter Normal Gut Flora

Artificial Sweeteners Induce Glucose Intolerance by Altering the Gut Microbiota.

Suez J, Korem T, et al:
Nature 2014; (September 17): epub ahead of print

Artificial sweeteners have a good safety record, but are not associated with consistently significant weight loss.

Background: Artificial sweeteners (AS) are used around the world by individuals of all shapes and sizes with a goal of losing weight or maintaining a healthy weight. However, more clinical research or studies is needed to determine the impact of these compounds on human health.

Objective: To determine the impact of different artificial sweeteners in animals and humans in terms of glucose sensitivity and other parameters.

Design/Methods: A series of laboratory experiments and observational data were utilized. To determine the impact of AS on glucose parameters, saccharin, sucralose, or aspartame was added to the drinking water of lean 10-week-old mice. Testing with antibiotics and transference of the flora were also achieved in animals. A small interventional and larger observational study of human consumption of AS were also conducted.

Results: AS mouse groups developed glucose intolerance ($P < 0.001$), and this did not occur in the mice consuming water, glucose, and sucrose. Fecal transplant of the flora changes into non–AS-consuming mice replicated the glucose intolerance phenotype ($P < 0.004$). Levels of glycosylated hemoglobin were significantly increased ($P < 0.002$) when comparing a subgroup of high AS consumers (40 individuals) compared to non-AS consumers (236 individuals). Researchers also followed 7 healthy volunteers for a separate study where they consumed the FDA maximum acceptable daily intake of saccharin equivalent to 120 mg, and 4 of these individuals developed significantly poor glycemic response 5 to 7 days after AS consumption versus days 1 to 4 ($P < 0.001$).

Conclusions: Collectively, these results link AS consumption, dysbiosis, and metabolic abnormalities, and call for a reassessment of massive AS usage.

Reviewer's Comments: In this current study, the maximum allowed amount of saccharin was used in the small pilot human study that showed 4 out of 7 non-AS users developed glucose intolerance. What other unhealthy behaviors did these 40 individuals harbor? I don't like the fact that AS causes changes in intestinal flora. The surprising part is that if these primarily animal studies are correct, in some individuals these flora changes may be associated with unhealthy changes. Yet, most troubling in all of this preliminary and mostly animal-based research is the hysteria this kind of story is able to generate and the deviation or distraction from the "elephant in the room" this will continue to propagate. AS has never shown consistent or significant weight loss in individuals, but this is not easy because AS does not change your sweet tooth because they are actually far sweeter than sugar (200 times and more). Thus, they keep you wanting and craving sugar when trying to reduce it from your caloric count. AS are such minor players in the weight/waist loss game that I would not get excited by them nor do I believe they are responsible for the global obesity/diabetes epidemic. (Reviewer-Mark Moyad, MD, MPH).

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Keywords: Artificial Sweetener, Glucose, Diet

Print Tag: Refer to original journal article