Duckett lecturer is investigating genetic causes of genitourinary defects

Research indicates that a significant percentage of babies with genitourinary (GU) defects have gene abnormalities in three key chromosomal regions associated with known syndromic conditions and would benefit from a visit to a medical geneticist, according to Dolores Lamb, PhD, HCLD (ABB), Vice Chair for Research in the Department of Urology and Director of the Center for Reproductive Genomics at Weill Cornell Medicine.

Dr. Lamb reviewed her research into the genetic causes of common upper and lower GU tract birth defects during the annual John Duckett Memorial Lecture on Sunday.

“It’s important to remember that these GU anomalies often come in groups,” she said. “They appear with other GU defects or other developmental problems, and this is because there was a common embryonic origin.”

To determine the molecular basis for these birth defects, Dr. Lamb and her research team hypothesized that they could start with the babies themselves, do advanced genetic analysis, identify structural chromosomal defects and then identify single candidate genes. With that information, they could then develop mouse models to show causation.

“We used array comparative genomic hybridization, which we can think of as a molecular karyotype. This is an array-based technology,” explained Dr. Lamb, noting that the research team compared GU-abnormal patients to GU-normal controls to see gene dosage loss or gene dosage changes.

Dr. Lamb provided results from the three chromosomal regions studied: a microduplication at Xq28 on the long arm of the X and Y chromosomes, microdeletions at 22q11.2 on chromosome 22 and microdeletions at 16p11.2 on chromosome 16.

“We used in vivo models, specifically mouse models, to prove that the mice would have the same birth defect when they had the same defect seen in our babies,” Dr. Lamb said, adding that all the babies they studied were non-syndromic and had the GU birth defect hypospadias and/or cryptorchidism.

Dr. Lamb discussed the candidate genes the researchers identified in each of the three chromosomal regions studied. For the microduplication at Xq28, the researchers identified VAMP7 as the candidate gene.

“We could not understand how we were seeing what seemed to be a steroid receptor-mediated type defect causing the GU birth defects that we were seeing. But we let the data talk to us,” she said. “It turned out that when you had excess VAMP7 present in these patients, that we were essentially blunting the action of the androgen receptor potentiating the action of the estrogen receptor.”

In chromosomal region 22q11.2, the researchers identified the candidate gene CRKL. Dr. Lamb noted that region 22q11.2 is a well-known duplications and deletions syndrome region, and that deficiencies in the CRKL gene disrupt signaling of fibroblast growth factor 8.

“The gene [CRKL] is also the one that seems to copy at least the DiGeorge Syndrome neurodevelopmental and cardiac deficiencies seen in children. So we hypothesized that deficiency of this gene was also contributing to the GU birth defects seen in the patients,” Dr. Lamb said. Using mouse models, the researchers were able to show that CRKL deletion resulted in an increased incidence of upper and lower GU defects, including unilateral renal agenesis in the embryos.

“We could not look at the adults because when you delete the entire gene, it’s embryonic lethal,” she said. “When they deleted one copy of the CRKL gene, it resulted in cryptorchidism, smaller testes, and an age-related decline in fertility and fecundity because of a plummeting sperm count as the mice aged.”

Lecturer examines role of antibiotics, imaging in prenatal UTD

During a State-of-the-Art Lecture on Sunday, C.D. Anthony Herndon, MD, FAAP, FACS, examined the association between urinary tract infection (UTI) and prenatal urinary tract dilation (UTD), specifically examining the impact of prophylactic antibiotics for prenatal UTD and the role of imaging in the postnatal period.

Various grading systems are used to describe UTD. The anteroposterior diameter (APD) measurement is the most common system used historically, while a combination of APD and the Society for Fetal Urology (SFU) grading system are used postnatally.

“When you have this lack of uniformity, it’s fairly difficult to make meaningful outcomes assessments. Therefore, in 2014 the SFU and the Society for Pediatric Urology adopted the UTD classification system,” said Dr. Herndon, Professor of Surgery/Urology and the Children’s Hospital Foundation of Richmond Endowed Professor of Surgery/Urology at Virginia Commonwealth University, and Chief of Pediatric Urology and Co-Surgeon-in-Chief at the Children’s Hospital of Richmond.

The UTD system is a combination of the SFU grading system and the APD measurement system that focuses on the prenatal and the postnatal periods using objective and subjective measurements.

“Initially, it’s a risk assessment for UTI, deterioration of renal function, risk of surgery, and then an evaluation and management schema based on these risks,” Dr. Herndon said.

Dr. Herndon said it’s important to understand that prenatal kidney dilation is a risk factor for UTI. He cited a Brazilian study that indicated a doubling of risk for each grade of prenatal UTD. A subsequent study demonstrated a similar finding, reporting a threefold increase in the rate of UTI when comparing low-grade to high-grade UTD.

“When we look at the question of whether prophylaxis can prevent these known risks of UTI, unfortunately the data are mixed,” Dr. Herndon said. “Looking at these single-center studies, such as the Brazilian study, there’s a high rate of infection while on prophylaxis, whereas other studies have demonstrated no difference. And then for a select population of secondary reflux, there’s a clear benefit.”

A systematic review of more than 4,000 patients in 2013 demonstrated that low-grade kidney dilation was not impacted by prophylaxis, mainly because of the low incidence of infection. In the same patient group, high-grade kidney dilation had a UTI rate that was reduced by half when prophylactic antibiotics were used. Another single-center retrospective review of 507 patients with prenatal hydronephrosis
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Robotic surgery experts will offer strategies for improving nephroureterectomy skills

Three experienced nephroureterectomy practitioners will discuss the emergence of robotic surgery as the new gold standard for nephroureterectomy during a Surgical Techniques session Monday afternoon. The hour-long session, titled Tips & Tricks: Nephroureterectomy, will begin at 2 pm in the Esplanade Ballroom at Moscone South.

Ashok Hemal, MD, Professor of Urology and Chief of Uro-oncology at Wake Forest University Institute for Regenerative Medicine, said open surgery was once the standard treatment for high-risk upper tract urothelial carcinoma (UTUC). But with the rise in minimally invasive alternatives to genitourinary pathologies, laparoscopy was adopted.

“The drawback to the laparoscopic approach lies within the excision of the distal ureter and the bladder reconstruction portion of the procedure,” he said. “In addition, it’s an ergonomically challenging procedure for the operating surgeon. With the advancement of robotic assistance, especially with improved instrumentation and enhanced 3D visualization, this major ablative and reconstructive procedure has become more technically feasible, leading to the increased adoption of this technology.”

Dr. Hemal will present intermediate and long-term oncologic data for robot-assisted nephroureterectomy. He will also compare results from the open, laparoscopic and robotic approaches.

“With this session, attendees will have exposure to all the techniques available for this complex surgery so they can make the best choice for their practice and for their communities,” he said.

The second surgeon, Surena Matin, MD, FACS, the Monteleone Family Foundation Endowed Professor in the Department of Urology at MD Anderson Cancer Center, said nephroureterectomy skills are critical because of the unforgiving nature of UTUC.

“This is a particularly important procedure to address because currently there’s a lot of variation in surgical technique across the profession,” he said. “And this cancer is unforgiving. This cancer will take advantage in any breach in surgical technique — any shortcuts, whether open, laparoscopic or robotic. There’s really no standardization for nephroureterectomy, so it’s not unusual for there to be a breach in the oncological approach.”

Dr. Matin will highlight specific problem areas of the procedure and will review his strategies for overcoming them. For example, he will review his strategy for addressing the distal ureter and the bladder cuff, showing how to standardize that process and make it amenable to a robotic approach that does not require repositioning or re-docking. He will also explain how he simultaneously incorporates lymph node dissection with his robotic approach, and will share retrospective data he published comparing the robotic approach to the laparoscopic approach.

Also during the session, Arieh Shalhav, MD, Chief of Urologic Surgery and Director of Robotic Surgery at the Comprehensive Cancer Research Center at the University of Chicago, will discuss how robotic nephroureterectomy can improve safety, increase efficiency and reduce morbidity.

“It’s important to demonstrate the superior safety and efficiency when it’s done robotically, and to demonstrate how a very thorough lymph node dissection can be performed robotically,” Dr. Shalhav said. “Attendees will learn tips and tricks for how to make the procedure seamless, even for surgeons with less experience.”

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2018 AUA ANNUAL BUSINESS MEETING HELD AT AUA2018

Monday 12:00 PM in Hall E, Room 22-23

- President’s Update
- Committee Reports: Bylaws, Nominating and Audit
- Necrology Report
- Officer elections

Agenda is available at www.AUAnet.org/ABM
Lecturer examines advantages of various vasectomy techniques

In a State-of-the-Art Lecture Sunday morning, Jesse Mills, MD, discussed the advantages and disadvantages of scalpel versus no-scalpel and cautery versus no cautery when performing vasectomies.

Dr. Mills said there are really no data that indicate that either the scalpel method or the no-scalpel approach is significantly superior, so the choice usually depends on training. “For the most part, the advantages versus disadvantages of scalpel versus not using a scalpel come down to patient satisfaction rates,” said Dr. Mills, Associate Clinical Professor of Urology at the David Geffen School of Medicine and Director of the Men’s Clinic at the University of California, Los Angeles. “There certainly have been a number of trials showing that there’s less bleeding with a no-scalpel vasectomy and lower hematoma formation, which makes sense because there’s a little less tissue dissection.”

Other advantages of a no-scalpel vasectomy include shorter surgical time, less pain and faster resumption of intercourse. “Among the disadvantages of the no-scalpel approach is that it requires specialized instrumentation. One of the things I found in my practice is those super-sharp Jacobson forceps don’t stay super-sharp through multiple vasectomies, so there’s a little bit of a replacement cost,” Dr. Mills said. “But other than that, there’s nothing that tells us that one way is better when it comes to success rates.”

Dr. Mills said cautery versus no cautery ultimately hinges on the choice of occlusion method.

“Vasal ligation, for example, probably has the highest failure rate possible. If you’re just going in and tying a suture across the vasectomy, it’s quick and it’s easy but has very high failure rates. It’s probably an unacceptable way to do the procedure if all you’re doing is ligating the vas deferens,” Dr. Mills said combining it with facial interposition can bring the failure rate down to almost zero. “However you want to occlude your vas deferens, combining with facial interposition and adding in some thermal cautery of some kind is going to give you the highest success rates, with potentially less tissue destruction and segmental removal,” he said. “The only disadvantage is that it takes more time.”

Dr. Mills also noted that a new, experimental vasectomy procedure, reversible inhibition of sperm under guidance, shows some promise. “It involves putting a polymer of styrene maleic anhydride into the vas, where it forms essentially a barrier to sperm motility so that every time a man ejaculates the sperm into the vas deferens it’s killed on contact,” Dr. Mills said. “It’s not even close to being ready for prime time, but it is something interesting on the horizon.”

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Jesse Mills, MD

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Follow-up

ClinicalTrials.gov study NCT02854436

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Follow-up

Treatment Phase Part II:
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For any questions on the study, please contact Dr. Nishi Kothari at nkothar@its.jnj.com.

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For more information or questions, contact Tito Roccia at troccia@its.jnj.com or Shonda Little at slittle10@its.jnj.com.

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The researchers identified chromosomal region 16p11.2 as another hotspot for key genes that regulate GU development and are involved in congenital GU anomalies. They identified candidate gene MAZ and found that MAZ copy variations were more likely in patients with GU abnormalities.

“When we knocked out this gene in our mouse models, we saw that they had congenital anomalies of the kidney and urinary tract,” said Dr. Lamb, adding that MAZ-deficient mice also exhibited other GU, cardiac and ocular defects.
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INDICATION
ERLEADA™ (apalutamide) is an androgen receptor inhibitor indicated for the treatment of patients with non-metastatic castration-resistant prostate cancer.

IMPORTANT SAFETY INFORMATION

CONTRAINDICATIONS
Pregnancy — ERLEADA™ can cause fetal harm and potential loss of pregnancy.

WARNINGS AND PRECAUTIONS

Falls and Fractures — In a randomized study (SPARTAN), falls and fractures occurred in 16% and 12% of patients treated with ERLEADA™ compared to 9% and 7% treated with placebo, respectively. Falls were not associated with loss of consciousness or seizure. Evaluate patients for fracture and fall risk. Monitor and manage patients at risk for fractures according to established treatment guidelines and consider use of bone targeted agents.

Seizure — In a randomized study (SPARTAN), 2 patients (0.2%) treated with ERLEADA™ experienced a seizure. Permanently discontinue ERLEADA™ in patients who develop a seizure during treatment. It is unknown whether anti-epileptic medications will prevent seizures with ERLEADA™. Advise patients of the risk of developing a seizure while receiving ERLEADA™ and of engaging in any activity where sudden loss of consciousness could cause harm to themselves or others.

ADVERSE REACTIONS

Adverse Reactions — The most common adverse reactions (≥10%) were fatigue, hypertension, rash, diarrhea, nausea, weight decreased, arthralgia, fall, hot flush, decreased appetite, fracture, and peripheral edema.

Laboratory Abnormalities — All Grades (Grade 3-4)
- Hematology — anemia ERLEADA™ 70% (0.4%), placebo 64% (0.5%); leukopenia ERLEADA™ 47% (0.3%), placebo 29% (0%); lymphopenia ERLEADA™ 41% (2%), placebo 21% (2%)
- Chemistry — hypercholesterolemia ERLEADA™ 76% (0.1%), placebo 46% (1.6%); hyperglycemia ERLEADA™ 67% (2%), placebo 49% (0.8%); hypertriglyceridemia ERLEADA™ 67% (2%), placebo 49% (0.8%); hyperkalemia ERLEADA™ 54% (0.2%), placebo 21% (0.5%)
- Rash — Rash was most commonly described as macular or maculo-papular. Adverse reactions were 24% with ERLEADA™ versus 6% with placebo. Grade 3 rashes (defined as covering >30% body surface area [BSA]) were reported with ERLEADA™ treatment (5%) versus placebo (0.3%). The onset of rash occurred at a median of 82 days. Rash resolved in 81% of patients within a median of 60 days (range: 2 to 709 days) from onset of rash. Four percent of patients treated with ERLEADA™ received systemic corticosteroids.

Hypothyroidism — Reported for 8% of patients treated with ERLEADA™ and 2% of patients treated with placebo based on assessments of thyroid-stimulating hormone (TSH) every 4 months. Elevated TSH occurred in 25% of patients treated with ERLEADA™ and 7% of patients treated with placebo. The median onset was day 113. There were no Grade 3 or 4 adverse reactions. Thyroid replacement therapy, when clinically indicated, should be initiated or dose-adjusted.

DRUG INTERACTIONS

Effect of Other Drugs on ERLEADA™ — Co-administration of a strong CYP3A4 or CYP2C19 inhibitor is predicted to increase the steady-state exposure of the active moieties. Initial dose adjustment is necessary; however, reduce the ERLEADA™ dose based on tolerability (See Dosage and Administration (2.2)).

Effect of ERLEADA™ on Other Drugs — ERLEADA™ is a strong inducer of CYP3A4 and CYP2C19, and a weak inducer of CYP2C9 in humans. Concomitant use of ERLEADA™ with medications that are primarily metabolized by CYP3A4, CYP2C19, or CYP2C9 can result in lower exposure to these medications. Substitution for these medications is recommended when possible, or evaluate for loss of activity if medication is continued. Concomitant administration of ERLEADA™ with medications that are substrates of UDP-glucuronosyl transferase (UGT) can result in decreased exposure. Use caution if substrates of UGT must be co-administered with ERLEADA™ and evaluate for loss of activity.

Substrates of P-gp, BCRP, or OATP1B1 — Apalutamide is a weak inducer of P-glycoprotein (P-gp), breast cancer resistance protein (BCRP), and organic anion transporting polypeptide 1B1 (OATP1B1) in vitro. Concomitant use of ERLEADA™ with medications that are substrates of P-gp, BCRP, or OATP1B1 can result in lower exposure of these medications. Use caution if substrates of P-gp, BCRP, or OATP1B1 must be co-administered with ERLEADA™ and evaluate for loss of activity if medication is continued.

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ERLEADA™ (apalutamide) + ADT improved median metastasis-free survival (MFS) by **2 YEARS** (24.3 months) vs placebo + ADT†
(40.5 months vs 16.2 months; HR=0.28; 95% CI: 0.23, 0.35; P<0.0001)

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**PSA doubling time ≤10 months.**

**Study Design:** SPARTAN was a phase 3, multicenter, randomized, double-blind, placebo-controlled trial of patients with non-metastatic CRPC (N=1207). Patients had a PSA doubling time ≤10 months and serum testosterone levels <50 ng/dL. All patients in the SPARTAN trial received a concomitant GnRH analog or had a bilateral orchiectomy. All patients enrolled were confirmed to be non-metastatic by blinded central imaging review. Patients were randomized 2:1 to receive ERLEADA™ 240 mg orally once daily + ADT or placebo orally once daily + ADT.

The primary endpoint was metastasis-free survival (MFS), defined as the time from randomization to the time of first evidence of blinded independent central review-confirmed distant metastasis, defined as new bone or soft tissue lesions or enlarged lymph nodes above the iliac bifurcation, or death due to any cause, whichever occurred first.†

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*ADT = androgen deprivation therapy; CRPC = castration-resistant prostate cancer; GnRH = gonadotropin-releasing hormone; HR = hazard ratio; PSA = prostate-specific antigen; SPARTAN = Selective Prostate Androgen ReceptorTargeting with ARN-529.

References:
1. ERLEADA™ [Prescribing Information]. Horsham, PA: Janssen Biotech, Inc.

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**INTRODUCING**

- An androgen receptor inhibitor indicated for the treatment of patients with non-metastatic CRPC†
- Once-daily oral dosing with no additional laboratory monitoring requirements beyond routine assessments for side effects†

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Please see brief summary of full Prescribing Information for ERLEADA™ on subsequent page.
ERLEADA is indicated for the treatment of patients with non-
metastatic, castration-resistant prostate cancer (NM-CRPC).

CONTRAINDICATIONS

ERLEADA is contraindicated for use in pregnant women because the
cancer drug can cause fetal harm and potential loss of
pregnancy. ERLEADA is not indicated for use in females, so
animal embryo-fetal developmental toxicity studies were
not conducted with apalutamide. There are no human data on the use
of ERLEADA in pregnant women. Based on its mechanism of action,
ERLEADA is expected to cause fetal harm when administered
during pregnancy. Use ERLEADA only if the potential benefit justifies
the potential risk to the fetus.

Laboratory Abnormality

Laboratory Abnormality

ERLEADA and with ERLEADA. Rash recurred in approximately half of patients who were re-
challenged with ERLEADA.

Lactation:

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the potential risk to the fetus.
Debate will focus on best approach for measuring success rates of urethral stricture repair

Four experts will debate the merits of invasive testing when monitoring patients for recurrence following surgical treatment of urethral stricture during a Monday morning Controversies in Urology session on Reconstruction. The 30-minute debate begins at 8:30 am during the Prime Time plenary session in the Esplanade Ballroom at Moscone South.

Moderator Sean Elliott, MD, MS, FACS, the Cloverfields Professor and Vice Chair of Urology at the University of Minnesota, said evaluating outcomes after urethral stricture surgery is similar to a urologists’ debate about prostate cancer screening.

“How aggressive do you want to be in finding a recurrence early after urethral stricture surgery? I think attendees will hear the debaters arguing against invasive testing say that, unlike prostate cancer, urethral stricture is a quality of life disease. This is not a life or death disease,” Dr. Elliott said.

Bradley Erickson, MD, MS, FACS, associate professor at the University of Iowa, and Benjamin Breyer, MD, MAS, FACS, associate professor of Urology and Epidemiology & Biostatistics at the University of California, San Francisco, will make the case against invasive testing. They will question whether it can demonstrate that managing recurrences early improves a man’s satisfaction with urethral stricture surgery.

“If there are quality of life issues with the surgery, can’t the man tell you when he’s symptomatic enough that he needs re-treatment?” Dr. Elliott asked.

“Because, unlike prostate cancer, we don’t know if treating a minor recurrence of his stricture makes any difference in his long-term happiness.”

Jill Buckley, MD, associate professor at the University of California, San Diego, and Keith Rourke, MD, FRCSC, professor of Urology at the University of Alberta in Edmonton, Canada, will argue that early detection of urethral stricture recurrence has benefits for the patient and the profession.

“Drs. Buckley and Rourke will likely make the case that detecting recurrences early allows clinicians to begin to manage them early, before they progress,” Dr. Elliott said. “They will argue that early detection gives you some lead time, and that lead time will help you achieve better outcomes in the long term.”

Additionally, invasive testing following urethral stricture surgery may have implications for advancing the practice.

“If you rely solely on patient reported outcomes to determine the success rates for urethral stricture procedures, the data will show a very high success rate,” Dr. Elliott said. “If you measure patients’ flow rates, it will be almost as high of a success rate. If you measure their recurrence rate with invasive testing, the success rate is going to be lower. It’s a more sensitive test.”

Dr. Elliott said Drs. Buckley and Rourke will argue that, in order to advance the field of urethral stricture surgery, comparison data are needed to determine which procedures have better outcomes, and more sensitive tests are needed to get that data.

“If every procedure has a 95 percent success based on patient reported outcome measures, how can you really compare two surgeries? Everything looks grand,” Dr. Elliott said. “Using invasive testing may provide a better understanding of the outcomes of our urethral stricture surgeries.”

Dr. Elliott said he hopes Monday’s debate attracts a large crowd because all urologists deal with urethral strictures, even if not all perform urethroplasty.
Panel to review prostate cancer research specific to the gay, bisexual, and transgender population

During a panel discussion Monday morning, two investigators will share novel prostate cancer research with practical implications for all urologists. The 30-minute session, titled Prostate Cancer Screening, Diagnosis and Treatment in the Gay, Bisexual and Transgender Population, will begin at 9 a.m. during the Next Frontier plenary session in Hall E at Moscone North.

Aria Olumi, MD, professor of Surgery/Urology at Harvard Medical School and Chief of Urologic Surgery at Beth Israel Deaconess Medical Center, said urologists are seeing more gay and bisexual men and transgender women in their practices as these communities become more accepted by society. But until recently, there has been no significant research regarding urological conditions like prostate cancer specific to these populations, he said.

Dr. Olumi, who is also Chair of Research for the AUA, said urologists have seen a significant uptick in male-to-female transgender patients being diagnosed with prostate cancer.

"Prostate cancer poses a unique risk for this population," he said. "These patients have been on hormone ablation treatment for a good portion of their lives. Standard guidelines for prostate cancer don’t apply to this population."

Dr. Olumi will review new data to help urologists make better treatment decisions for transgender patients.

"Studies suggest that the lifelong estrogenic treatments common in transgender women may be protective for prostate cancer," he said. "The data available suggest that prostate cancer is only detected in about 0.04 percent of the transgender population. It's unclear if there's truly a protective effect, as many in the transgender population still do not seek comprehensive health care."

However, when transgender patients are diagnosed, the data suggest they are at risk of more advanced prostate cancer.

"These patients are essentially diagnosed with hormone resistant or castration resistant prostate cancer because they've been on lifelong hormones," Dr. Olumi said. "Their prostate cancer is progressing through hormonal ablation treatments. This poses a whole new challenge for urologists."

Dr. Olumi will discuss systemic therapies that should be considered when traditional, first-line options are ineffective for patients who have undergone long-term androgen deprivation. Physicians may need to consider therapies that are traditionally second or third line options, he said.

Once a treatment plan has been determined, there are other unique challenges to consider. "With radiation, for example, oftentimes the size of the prostate in the transgender population is extremely small," Dr. Olumi said. "If the patient is being treated with brachytherapy seeds, it can be quite challenging to place the seeds while minimizing toxicity to the surrounding organs, including the neovagina if the patient has had sex reassignment surgery. If undergoing radical prostatectomy, special anatomical evaluation of the organs adjacent to the prostate need to be carefully considered perioperatively to minimize the risk of surgical complications."

The session's other presenter, B.R. Simon Rosser, PhD, MPH, LF, Director of the HIV/STI Intervention and Prevention Studies Program in the School of Public Health at the University of Minnesota, will present findings from the first-ever National Institutes of Health (NIH) funded exploratory research project examining prostate cancer in gay and bisexual men. The results of this study, which was conducted in 2015-16, will be published soon.

"Prostate cancer is the most common cancer in men, including those in gay and bisexual populations," said Dr. Rosser, who is also Chair of the Behavioral and Social Sciences Prevention of HIV study section at NIH. "We’re filling an important gap in the medical literature, and it’s smart science. I’ve long argued that it’s important to study cancers in different communities because it invites discovery. It invites us to compare and contrast results. Epidemiologically, it’s essential."

Dr. Rosser’s research includes data from a study of 193 gay and bisexual men in North America who survived prostate cancer. He said the research findings have several practical implications for clinicians.

"We discovered that when gay and bisexual men are aware about the potential effects of prostate cancer treatment, they adjust well," Dr. Rosser said. "But patients reported many instances where they were not warned about changes. There were even cases where the physicians challenged them about side effects. In those cases the patients retreat into anger and lasting resentment."

Dr. Rosser said it’s important for clinicians to understand that gay and bisexual men have different questions, especially about the sexual side effects of prostate cancer treatment. None of the study participants reported having their questions adequately answered.

He offered examples of questions distinct to gay and bisexual patients: How long after surgery should I wait before anal stimulation? If I’ve had brachytherapy, can the seeds get pushed into my partner’s urethra?

"These questions don’t appear in the heterosexual literature, which illustrates the need for research that includes patients from the gay and bisexual community," Dr. Rosser said. "We have a critical problem in this field, which is poor identification and recruitment of patients from this population. It’s time for gay men with prostate cancer to be visible. That can only occur if clinics collect sexual orientation data as a standard demographic."

The study also led to concerns about how prostate cancer treatment may affect HIV transmission.

"Gay and bisexual men are a high risk group for HIV, so we were concerned about the impact of cancer treatment on condom use," Dr. Rosser said. "In our cohort 61 percent of gay and bisexual men who engage in insertive anal sex reported erection concerns as their primary reason why they weren’t using condoms."

"Additionally, we had three men seroconvert after prostate cancer treatment," he continued. "When you look at this cohort, these are men who made it through the worst of the AIDS epidemic without seroconverting, and now they’re converting after treatment. So we’re concerned about the impact of treatment on HIV transmission."

Dr. Rosser will review several other notable findings from the study and discuss future interventions and research possibilities for this population.
FIND OUT WHAT’S NEW WITH THE UROLIFT® SYSTEM

IN-BOOTH PRESENTATIONS FROM UROLIFT® SYSTEM EXPERTS:

Saturday, May 19
10:30 a.m.  Dr. Thomas Mueller
1:30 p.m.  Dr. Steven Gange
3:00 p.m.  Dr. Thomas Mueller

Sunday, May 20
10:30 a.m.  Dr. Eric Freedman
1:30 p.m.  Dr. Thomas Mueller
3:00 p.m.  Dr. Thomas Mueller

Monday, May 21
10:30 a.m.  Dr. Thomas Mueller

THE UROLIFT SYSTEM ON THE PODIUM:

Saturday, May 19
3:00-4:00 p.m. | MCC South, Esplanade
Prostatic Urethral Lift Video Presentation
Session: Plenary: Surgical Techniques: Tips & Tricks: Benign Prostatic Hyperplasia (BPH)
Dr. Gregg Eure

Sunday, May 20
1:30 p.m. | MCC West, 3006
Predictors of Response to the Prostatic Urethral Lift Treatment
Dr. Steven Kaplan et al.

Sunday, May 20
4:05-4:15 p.m. | MCC North, Hall E
Multi-Center Prospective Study of the Prostatic Urethral Lift for Obstructive Median Lobe: The MedLift Study, An Extension of the LIFT Randomized Study
Session: Plenary: Next Frontier (Late-Breaking Abstract)
Dr. Daniel Rukstalis et al.

Expanded Indications • Real World Data • One Year MedLift Data

A PROVEN ALTERNATIVE TO BPH MEDICATIONS

Follow us on @UroLift
Experts to debate use of MRI vs. biopsy for prostate cancer detection

Four experts in prostate cancer diagnosis and screening will debate best practices during a Monday afternoon Controversies in Urology presentation titled Prostate: PSA of 4-10 Gets an MRI not a Biopsy. The 30-minute debate begins at 1 pm during the Prime Time plenary session in the Esplanade Ballroom at Moscone South.

Moderator Christopher Evans, MD, FACS, professor and Chair of the Department of Urology at the University of California, Davis, School of Medicine, said multiple factors complicate prostate cancer screening, creating different schools of thought on best practices.

“For example, MRI is less expensive in Europe compared to the United States, so that, in part, contributes to its greater utilization in Europe,” said Dr. Evans, who is also President of the Society of Urologic Oncology. “There’s some data from the PROMIS trial that suggests prostate biopsy isn’t needed in some patients with negative MRI [magnetic resonance imaging], even when PSA [prostate specific antigen] is elevated. So the practice of many urologists, especially in Europe, would be to get a MRI, and if it’s negative to not do a biopsy. That’s not the standard practice in the United States because not everyone agrees with the data.”

Part of the controversy, he said, is how “significant cancer” is defined.

In the PROMIS trial the definition of significant cancer was more aggressive than most U.S. urologists would use.

Because our definitions vary, I think this debate will center on what is an acceptable risk for the patient,” Dr. Evans said. “You have to weigh the risk of biopsy and the risk of the cancer.”

During the presentation, Mark Emberton, FMedSc, professor of Interventional Oncology at University College London, and Samir Taneja, MD, Director of the Division of Urologic Oncology in the Department of Urology at New York University Langone Health, will make the case for using MRI first in certain patients. They will argue that MRI will not only detect almost all significant prostate cancer, but that it’s also cost-effective and avoids an invasive procedure, Dr. Evans said.

On the other side of the debate, Mark Frydgenberg, MBBS, FRACS, Clinical Director of the Prostate Cancer Research Group at Monash University in Clayton, Australia, and Daniel Lin, MD, professor and Chief of Urologic Oncology at the University of Washington School of Medicine, will argue that not performing a biopsy, even with a negative MRI, could mean missing up to 30 percent of what might be defined as significant cancer.

Dr. Evans said that despite the controversy surrounding the issue, he believes attendees will leave with a better understanding of the pros and cons of each approach so they can better discuss the options with patients and ultimately make the best decision about each.

“Physicians will be able to express these considerations to their patients so they can better understand what’s most important to the patient — avoiding a biopsy or being as sure as possible that they don’t have significant cancer,” Dr. Evans said. “Patient preference on the matter is an important part of this discussion.”

Available technology is also an important part of this decision, he said.

“Individual practices will always be influenced by the technology available to them. For most urologists in the United States, a multiparametric MRI is available,” Dr. Evans said. “However, a fusion biopsy is not available in every practice, which may limit the approaches to this problem for some clinicians.”

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Surgeons will share expert, novel techniques for robotic reconstruction of the ureter

Three robotic surgery specialists will share their expertise during a Monday morning surgical techniques session titled Tips & Tricks: Robotic Reconstruction of the Ureter. The 45-minute presentation will begin at 10:45 am during the Prime Time plenary session in the Esplanade Ballroom at Moscone South.

Daniel Eun, MD, professor of Urology and Director of Minimally Invasive Robotic Urologic Oncology and Reconstructive Surgery at the Lewis Katz School of Medicine at Temple University Hospital, will share robotic surgery techniques he’s refined in the last decade. “We’re currently in the midst of creating a new paradigm of complex repair of the ureter,” he said. “Historically speaking, most of the work we’re now doing using robotic surgery has been viewed as techniques in the realm of open surgery. However, since I started my practice in 2008, I’ve tackled more and more complex ureteral reconstruction cases using minimally invasive techniques with the robot. Over the years, I’ve realized these complex cases can be done through new means and do not necessarily require open surgery.”

Dr. Eun will review a near-infrared fluorescence imaging technology he uses in novel ways to solve complex ureteral reconstruction cases. “In complex ureteral reconstruction cases the ureter can be completely fibrotic and fused to the retroperitoneum, and therefore difficult to identify,” Dr. Eun said. “By injecting indoxyline-anine green (ICG) directly into the ureter and switching to the near-infrared mode, the ureter will light up bright green. It almost looks like a lit-up runway showing us the way.”

Dr. Eun noted this is an off-label use of ICG. He will also discuss other uses for ICG, as well as robotic buccal mucosa ureteroplasty.

“The field of ureteral reconstruction surgery has really taken a step forward with exciting new technologies and techniques,” he said. “We now have less radical options to solve these challenging problems.”

Andre Berger, MD, assistant professor of Urology and Robotic & Laparoscopic Surgery at the University of Southern California, will also share insights on reconstructive robotic surgery, including ileal ureter procedures.

“This is an intense topic because even in open surgery just a few surgeons have experience in complex reconstructive procedures,” Dr. Berger said. “Traditionally, repair of the ileal ureter is a long operation with many steps. We propose, that it can be done robotically to hopefully minimize the risk of complications and speed recovery for patients.”

At the University of Southern California, near-infrared fluorescence imaging technology and ICG are used to evaluate bowel and ureteral vascularization. Dr. Berger said preliminary data suggest that the technology can guide surgeons during distal ureteral resection, decreasing ureteral stricture rate in intracorporeal urinary diversions after robotic radical cystectomies.

He will review how his team uses a robotic system that allows him to complete the procedure without repositioning the patient or the robot, significantly decreasing the length of the procedure.

Patricio Gargollo, MD, associate professor at the UCLA School of Medicine, will discuss robotic surgery from a pediatric perspective. He will share data he’s published on robotic ureteral implantation for vesicoureteral reflux.

“This condition is a lot more common in pediatrics, but it’s certainly seen in the adult world as well,” he said. “We’ve got into a lot of debates about this, but the initial data suggest that robotic-assisted ureteral implantation has a lower success rate, potentially a higher complication rate and a longer anesthesia time. The longer anesthesia time is really important in pediatrics because studies show prolonged anesthesia may be detrimental to the developing brain.”

Dr. Gargollo will also address the cosmetic aspect of robotic ureteral surgery. “It’s important we make our incisions as cosmetically pleasing as possible, and robotic-assisted ureteral implantation in children, depending on how you do it, can potentially leave visible scarring,” he said. “So with this particular procedure, when compared to open surgery we’re looking at possibly having a lower success rate, a potentially higher complication rate, less cosmetically pleasing scar parameters, higher costs and longer anesthetic time.”

For more information about the session, please visit www.sutentcpp.com.

MOST COMMON ADVERSE REACTIONS (%) (by treatment group)

- Thyroid dysfunction may occur. Monitor thyroid function in patients with signs and/or symptoms suggestive of thyroid dysfunction, including hypothyroidism, hyperthyroidism, and euthyroid toxic micronodular goiter, and treat per standard medical practice.
- Hypoglycemia may occur. SUTENT can result in symptomatic hypoglycemia, which may lead to a loss of consciousness or require hospitalization. Reductions in blood glucose levels may be worse in patients with diabetes. Check blood glucose levels regularly and after discontinuation of treatment with SUTENT. Assess if antidiabetic drug dosage needs to be adjusted to minimize the risk of hypoglycemia.
- Osteonecrosis of the jaw (ONJ) has been reported. Consider preventive dentistry prior to treatment with SUTENT if possible, avoid invasive dental procedures, particularly in patients receiving intravenous bisphosphonate therapy.
- Impaired wound healing has occurred with SUTENT. Temporary interruption of therapy with SUTENT is recommended in patients undergoing major surgical procedures. There is limited clinical experience regarding the timing of resumption of therapy following major surgical intervention. Therefore, the decision to resume SUTENT therapy following a major surgical intervention should be based on clinical judgment of recovery from surgery.
- Embryofetal toxicity and reproductive potential: Female. SUTENT can cause fetal harm when administered to pregnant women. Advise pregnant women of the potential risk to a fetus. Advise females of reproductive potential to use effective contraception during treatment with SUTENT and for 4 weeks following the final dose.
- Male: Based on findings in animal studies, male fertility may be compromised by treatment with SUTENT.
- Lactation: Because of the potential for serious adverse reactions in breastfed infants from SUTENT, advise lactating women not to breastfeed during treatment with SUTENT and for at least 4 weeks after the last dose.
- Venous thromboembolic events: In patients treated with SUTENT (N=757)/GIST, advanced RCC, cMET, and as an adjuvant treatment for RCC, 3.5% of patients experienced a venous thromboembolic event; 2.2% were Grade 3-4.
Surgeons will share operative tips for penile and urethral cancer

T

ree expert surgeons will share their expertise in treating urological cancers during a Monday morning surgical techniques session. The 45-minute presentation, TIPS & Tricks: Penile and Urethral Cancer, will begin at 9:30 am during the Prime Time plenary session in the Esplanade Ballroom at Moscone South.

Anne Schuchman, MD, assistant professor of Urology at the University of Southern California, said that although there are a variety of operative techniques that can be used to treat penile cancer, urologists may not practice them frequently because the condition is so rare.

“Reviewing these surgical techniques will help reassure clinicians that they’re practicing the most up-to-date and recommended surgeries when they are faced with penile cancer,” she said. “Most urologists don’t have an opportunity to do a lot of these operations in their practice.”

Dr. Schuchman will be joined by David Ralph, MD, a urologist at St. Peter’s Andrology Center and the Institute of Urology at University College, London, and Maarten Albersen, MD, a urologist and postdoctoral researcher at University Hospitals in Leuven, Belgium.

Hunter Wessels, MD, FACS, professor and the Nelson Chair of the Department of Urology at the University of Washington School of Medicine, will moderate the presentation.

The session will review a range of surgical options, from minimally invasive to very invasive.

“In this day and age, penile cancer does not necessarily mean a total penectomy,” Dr. Schuchman said. “My colleagues and I will highlight several techniques on each end of the spectrum.”

Dr. Schuchman will review techniques for total penectomy, the most invasive option for advanced penile cancer.

“For those patients that do require a total penectomy, I hope that we can review techniques for creating a functional and long-lasting perineal urethrogram,” Dr. Schuchman said. “I also hope to share some tips to help attendants avoid common complications when dealing with more advanced disease.”

Dr. Ralph will review organ sparing surgical options for patients with less advanced disease as well as review strategies for partial penectomies.

“My many surgeons have been performing partial and total penectomies for a long time,” Dr. Schuchman said. “We hope this session will expose attendees to new techniques for those procedures, as well as give them penile sparing options.”

The presenters will also discuss the ongoing International Penile Advanced Cancer Trial (INFACT). //
A panel of trauma experts will help AU2018 attendees become better equipped to address serious urological injuries during a Complex Cases presentation Monday morning titled Bladder and Genital Trauma.

The 30-minute presentation begins at 9 a.m. during the Prime Time plenary session in the Esplanade Ballroom at Moscone South.

Presenter Richard Santucci, MD, FACS, a urologist at Brownstein-Cranefull Surgical Services, said the impetus for the session was a desire to put together a “dream team” of genitourinary, trauma and reconstruction experts who could share strategies for tackling some of the most complex cases a urologist may see.

“A big part of AU2A’s mission is to teach the basics and the guidelines, and to develop algorithms and other tools for everyday practice,” said Dr. Santucci, who recently served as co-chair of the AUA urology guidelines panel. “This session is a bit different because it deals with those less frequent occasions when you’re in the middle of a trauma and you can’t call anyone for help.

With this session, we hope to demonstrate integrative, high level, multifactorial ways to think about trauma to equip clinicians for those situations.”

Steven Hudak, MD, who is an active duty Lieutenant Colonel in the U.S. Army and a reconstruction urologist at Brooke Army Medical Center and at the San Antonio Uniformed Services Health Education Consortium, will discuss complex genital injuries.

“Dr. Hudak sees a lot of complex blast injuries, which are sometimes seen in civilian life as well,” Dr. Santucci said.

Adverse reactions and infections: Serious infection (both on and off treatment)*. The infection must commonly observed with SUTENT treatment include respiratory, urinary tract, skin infections, and septic shock.

Maculopapular or connective tissue disorders: Molluscum contagiosum, sometimes associated with healed skin lesions. Dermatitis, dermatitis psoriasiform, exfoliative rash, genital rash, rash, rash erythematous, angioedema, and urticaria, sometimes associated with systemic symptoms.

Pancreatic Function: Pancreatitis was observed in 5 patients (1%) receiving SUTENT for post-approval use of SUTENT. Because these reactions are reported voluntarily from a population of patients treated with SUTENT, it is not possible to reliably estimate their frequency or establish a causal relationship to SUTENT treatment.

Hepatobiliary disorders: The adverse reactions are reported as: cholecystitis, particularly acalculous cholecystitis.

Metabolism/Nutrition: Anorexia/Decreased appetite.

Cardiac: Localized edema.

Respiratory disorders: Pulmonary embolism*.

Systemic therapy: renal impairment and/or failure. Failure to renal impairment.

Reproductive system: infertile/sterile.

Bleeding events, all sites

Angiographic interventions, including procedures: embolization.

Liver function tests: abnormal ALT, abnormal AST, abnormal total bilirubin, abnormal total cholesterol.

Central nervous system: seizures.

Endocrine: hypothyroidism.

Hematology: localized or generalized bruising.

Metabolic: hyperkalemia (2%).

Musculoskeletal: localized limb edema.

Pancreatic Function: Pancreatitis.

Psychiatric: suicidal ideation.

Allergic and hypersensitivity reactions: Hypersensitivity reactions including urticaria.

Hypersensitivity reactions: urticaria.

Esophageal disorders: dysphagia.

Gastrointestinal disorders: dyspepsia, including, particularly, increased appetite.

Musculoskeletal disorders: myalgia.

Skin disorders: rash erythematous, rash, rash macular, rash papular, rash papulopapular, rash papulovesicular, rash papulosquamous, rash papulonodular, rash purpuric, rash urticarial, rash vesicular.

Skin discoloration/Yellow skin.

Respiratory disorders: pulmonary embolism*.

Hepatobiliary disorders: cholestasis.

Metabolism/Nutrition: anorexia.

Cardiac: hypertension.

Vascular disorders: post-approval use of SUTENT. Because these reactions are reported voluntarily from a population of patients treated with SUTENT, it is not possible to reliably estimate their frequency or establish a causal relationship to SUTENT treatment.

Hypertension.

Musculoskeletal: calcifications.

SUTENT is contraindicated in patients with adverse reactions of the nervous system.

Hepatobiliary disorders: jaundice.

Esophageal disorders: dysphagia.

Skin discoloration/Yellow skin.
Computers learning to assist physicians in diagnosis of prostate cancer

“...the development of high speed image processing software with modern digital scanners and ever increasing computation power is allowing us to train computers to perform very complex tasks that we typically do as specialists,” said Dr. Goldenberg, who is also Chair of the Canadian Men’s Health Foundation. “We’re able to digitize histopathology slides in high resolution, which gives us an opportunity to improve efficiency. Pathologists are quite burdened by the task of examining hundreds and hundreds of slides. By training a computer to differentiate cancer from non-cancer on a histology slide, we would enable the throughput of more and more slides.”

In another example of how machine learning may shape the future of urology diagnostics, Dr. Goldenberg said computer diagnostics are being used to predict outcomes.

“You can show the computer a slide of a patient with cancer and then, using an outcomes database, tell the computer what happens to that patient five or 10 years later,” Dr. Goldenberg said. “If you present the computer with thousands and thousands of cases with related clinical outcomes, unsupervised, deep learning algorithms will recognize features that predict or that will have performance to direct what doctors will do with a certain disease. And it will be more reliable than any other expert than humans. I suspect the computer will be able to see things in a digitized pathology image or MRI [magnetic resonance imaging] that human occipital lobes cannot appreciate.”

The session’s other presenter, Dr. Pinto, MRI, with High-Grade Training and Radiology and Director of the Fellowship Program in the Urogynecologic Oncology Branch at the National Cancer Institute of the National Institutes of Health (NIH), will discuss why he believes deep learning will be the next innovation in medical imaging.

“The opportunity for machines to reference images is already beginning in medicine,” he said. “For example, in dermatology they’re training computers to recognize visual patterns to diagnose skin cancers. The computer can do this better and faster than the physician. This can help the physician be a better diagnostic physician. This is where urology will benefit from deep learning — in diagnostic imaging.”

Dr. Pinto will focus his talk on the current needs in urological imaging.

“I believe the need right now is for MRI to detect prostate cancer,” he said. “Some of the work in our lab at the NIH and by others during the past 20 years has shown that high-grade prostatic intraepithelial neoplasia, which is the precursor lesion to prostate cancer, is found in almost 50% of prostate cancer cases. There is also evidence that the computer can distinguish between cases of low-grade cancer and cases of high-grade cancer. And it can do so better and faster than any radiologist.”

For further information, please visit www.vice.com.

By: J. Nathan Sikkerson

**References**

Panel will review surgical strategies for female urethral stricture disease

Four experts will discuss surgical approaches for female urethral stricture disease during a Monday morning surgical techniques presentation titled Tips & Tricks: Female Urethral Stricture Disease. E. Ann Gormley, MD, professor of Surgery at Geisel School of Medicine at Dartmouth, will moderate the 45-minute presentation, which begins at 7:45 am during the Prime Time plenary session in the Esplanade Ballroom at Moscone South.

“In theory, female urethral stricture disease is not terribly common,” Dr. Gormley said. “However, we know it’s a diagnosis that is quite commonly billed. So even though this session will focus on surgical tips and tricks, we will first introduce this topic and talk about the prevalence of the problem.”

Historically, female urethral stricture disease has been treated with dilation.

“There will be situations where a clinician may dilate a urethral stricture, all of us on the panel agree that dilation isn’t a sustainable way to treat this problem,” Dr. Gormley said. “You may do it once to get someone out of trouble, but if the problem recurs then you need to do a more durable procedure. However, before you discuss treatment options, you have to review other factors a clinician should consider before diagnosing urethral stricture in a female patient.”

Dr. Gormley and the panel of expert surgeons will share strategies for ruling out conditions that mimic the symptoms of female urethral stricture. Anne Cameron, MD, FRCS, associate professor of Urology at the University of Michigan, will review primary bladder neck obstruction.

“We think primary bladder neck obstruction is often confused with urethral stricture, and the treatment is not the same,” Dr. Gormley said. “So Dr. Cameron, who is fellowship trained in female pelvic medicine and reconstruction, will focus on how one differentiates between the two and how one should treat a primary bladder neck obstruction compared to how one should surgically treat a diagnosed urethral stricture.”

The panel will also review the use of vaginal flaps and buccal flaps for treating female urethral stricture.

Rajveer Purohit, MD, MPH, Director of Reconstructive Urology and associate professor of Urology at Icahn School of Medicine at Mount Sinai Hospital, will review vaginal flap urethroplasty.

Bahaa Maleb, MD, assistant professor of Urology and Medical Director of the Taubman Center Urology Clinic at the University of Michigan, will review buccal graft urethroplasty.

“After the presentations, we hope we’ve demonstrated that there are options for female patients with strictures,” Dr. Gormley said. “Vaginal flap urethroplasty is relatively straightforward but other procedures like buccal flaps are more complicated. I think it’s fair to say the more complicated procedures require specialty training beyond urology residency. There are a lot of people trained in female pelvic medicine who may not want to do urethroplasty with a buccal graft.”

Dr. Gormley said attendees will learn to determine which procedure is right for an individual patient and to recognize when a multidisciplinary approach is required.

“Female urethral stricture may be treated by surgeons fellowship trained in female pelvic medicine, but it’s also something that could be treated by someone trained in reconstruction,” she said. “With this particular condition, the quest is to determine the right procedure for a patient and, if necessary, to refer them to the right surgeon regardless of their specialty.”

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A Little Space Makes a Big Difference.

**Panel will review surgical strategies for female urethral stricture disease**

**Moderator:** E. Ann Gormley, MD

**Location:** Esplanade Ballroom at Moscone South

**Date:** Monday, May 21, 10:00 AM

**Panelists:**
- Anne Cameron, MD, FRCS
- Rajveer Purohit, MD, MPH
- Bahaa Maleb, MD
- E. Ann Gormley, MD

**Tips & Tricks:**
- Female urethral stricture may be treated with dilation.
- There will be situations where a clinician may dilate a urethral stricture.
- Dilation isn’t a sustainable way to treat the problem.

**Recent developments:**
- Vaginal flap urethroplasty
- Buccal graft urethroplasty

**Venue:**
- **Augmenix** Booth 6251 Hall D
- **Speak with Urology Experts**
  - Saturday, May 19, 2:00 PM: “SpaceOAR hydrogel clinical benefits and procedural overview.”
  - Sunday, May 20, 10:00 AM & 2:00 PM: “Recent developments in minimally invasive surgery.”
  - Monday, May 21, 10:00 AM: “Integrating SpaceOAR hydrogel into your office-based practice.”

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**Monumental progress in prostate cancer at an early stage.**

The difficulty in adopting this is in the need for all radiologists to be able to interpret the MRI correctly. At the NIH, we are looking at deep learning to improve how the computers can identify regions of cancer and bring the attention of the physician to those areas.

Dr. Pinto and his colleagues are training deep learning computers with prostate MRI and prostatectomy histopathology correlation studies.

“Patients who enroll in our trials at the NIH undergo prostate MRI, and for those who go on to surgery, we section the prostate in a patient-specific, 3D printed pathology mold that correlates directly with our MRI image slices,” he said. “We’re training computers to see the areas the MRI correctly identified and the areas that it missed. This is pattern recognition that human brains perform every day, but it’s remarkable how quickly the computers can process hundreds of thousands of images. The goal is not to replace radiologists. The goal is to help them.”

Dr. Pinto said the technology will be a new adjunct, like any other resource that physicians should consider before diagnosing urethral stricture.

“You have to review other factors a clinician needs to do a more durable procedure. However, before you discuss treatment options, you have to review other factors a clinician should consider before diagnosing urethral stricture in a female patient.”

Dr. Gormley said attendees will learn to determine which procedure is right for an individual patient and to recognize when a multidisciplinary approach is required.

“Female urethral stricture may be treated by surgeons fellowship trained in female pelvic medicine, but it’s also something that could be treated by someone trained in reconstruction,” she said. “With this particular condition, the quest is to determine the right procedure for a patient and, if necessary, to refer them to the right surgeon regardless of their specialty.”

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**Panelists:**
- Anne Cameron, MD, FRCS
- Rajveer Purohit, MD, MPH
- Bahaa Maleb, MD
- E. Ann Gormley, MD

**Tips & Tricks:**
- Female urethral stricture disease is not terribly common.
- There will be situations where a clinician may dilate a urethral stricture.
- Dilation isn’t a sustainable way to treat the problem.

**Recent developments:**
- Vaginal flap urethroplasty
- Buccal graft urethroplasty

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AUA2018 Exhibitors  List current as of May 1, 2018

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Exhibit Hall BC, Moscone South (Booths 900–3000)
2018 AWARD WINNERS

RAMON GUITERAS AWARD
Edward M. Messing, MD
For over 35 years of outstanding contributions to the art and science of urology, specifically urologic oncology

HUGH HAMPTON YOUNG AWARD
Francesco Montorsi, MD
For seminal scientific contributions to the study of urologic oncology and andrology, as well as for mentorship and global leadership in academic urology

GOLD CYSTOSCOPE AWARD
E. Jason Abel, MD
For outstanding contributions as a physician-scientist in renal carcinoma research, clinical excellence and education

LIFETIME ACHIEVEMENT AWARD
Pramod C. Sogani, MD
For exemplary service and leadership as AUA President and for teaching and mentoring generations of urologists

ROBERT C. FLANIGAN EDUCATION AWARD
Gary J. Faerber, MD
For years of tireless devotion to education and mentorship of residents and faculty, and vision in developing the AUA Residents Bowl

VICTOR A. POLITANO AWARD
Timothy B. Boone, MD, PhD
For excellent clinical research and educational efforts in neurourology and neuroscience, including urodynamic, female pelvic medicine and spinal cord injury

WILLIAM P. DIDUSCH
ART & HISTORY AWARD
Erwin W. Rugendorff, MD
For decades of support for the Didusch Center for Urologic History and outstanding writing on the history of medicine and philosophy

DISTINGUISHED SERVICE AWARD
Richard A. Memo, MD
For exemplary service and leadership as AUA Treasurer, and as the inaugural Chairperson of the Urology Care Foundation

DISTINGUISHED CONTRIBUTION AWARD
Arthur L. Burnett Jr, MD, MBA
For outstanding contributions to the fields of prostate cancer, sexual medicine and urologic mentoring

DISTINGUISHED CONTRIBUTION AWARD
Wayne J. G. Hellstrom, MD
For seminal contributions to andrology, in the fields of sexual dysfunction and infertility as well as effective leadership and mentorship in academic urology

DISTINGUISHED CONTRIBUTION AWARD
Louis R. Kavoussi, MD, MBA
For pioneering contributions to minimally invasive urologic surgery, telemedicine and education

DISTINGUISHED SERVICE AWARD
J. Quentin Clemens, MD
For decades of outstanding leadership and service to the Western Section and the AUA Board of Directors and contributions to the importance of Health Policy

DISTINGUISHED SERVICE AWARD
Jeffrey E. Kaufman, MD
For training and educating generations of urologists in trauma and reconstruction

DISTINGUISHED SERVICE AWARD
J. W. McAninch, MD
For decades of outstanding leadership and service to the AUA

DISTINGUISHED SERVICE AWARD
Olympus America, Inc.
For outstanding support of AUA’s missions and goals

HEALTH SCIENCE AWARD
Olympus America, Inc.
For outstanding leadership in the development of the OKAT and as chair of the Castration-Resistant Prostate Cancer Guideline

GOLD CYSTOSCOPE AWARD
Michael S. Cookson, MD, MMHC
For decades of innovation in urologic reconstruction and fostering collaboration between the American Board of Urology and the AUA

GOLD-HEADED CANE AWARD
Wayne J. G. Hellstrom, MD
For decades of support for the Didusch Center for Urologic History and outstanding writing on the history of medicine and philosophy

PRESIDENTIAL CITATION
Gerald H. Jordan, MD
For excellence in urologic mentoring, telemedicine and education

PRESIDENTIAL CITATION
Michael S. Cookson, MD, MMHC
For outstanding leadership in the development of the OKAT and as chair of the Castration-Resistant Prostate Cancer Guideline

PRESIDENTIAL CITATION
Gerard H. Jordan, MD
For decades of innovation in urologic reconstruction and fostering collaboration between the American Board of Urology and the AUA

HONORARY MEMBERS

The following individuals were elected to 2018 Honorary Membership:

David A. Bloom, MD
For outstanding leadership in urologic education and passion for preserving the history of urology

Ralph V. Clayman, MD
For innovative research and development in the field of endourology and minimally invasive surgery

Sakti Das, MD
For service as AUA historian as well as philanthropic service and outreach in developing countries

Michael J. Droller, MD
For years of service to the AUA and The Journal of Urology®

Alan B. Retik, MD
For pioneering efforts in developing the field of pediatric urology

Manfred Wirth, MD
For an outstanding career and for work in developing interactions between the European Association of Urology and the AUA

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THE SKILLS WORKSHOP
MCC SOUTH: HALL BC

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SATURDAY AFTERNOON NETWORKING EVENT:
MCC NORTH: HALL D & MCC SOUTH: HALL BC

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SATURDAY AFTERNOON NETWORKING EVENT
MCC NORTH: HALL D & MCC SOUTH: HALL BC

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7TH ANNUAL RESIDENTS BOWL
MCC SOUTH: HALL BC

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OFFICE OF EDUCATION COURSES
ALL COURSES ARE APPROVED FOR AMA PRA CATEGORY I CREDIT™

MONDAY, MAY 21

7:30–9:30 am
060IC
Optimizing the Team Approach to Kidney Stone Clinic: The Urologist & Advanced Practice Provider (APP)
Nicole Miller, Course Director
Amy Krambeck, Christy Krieg
Room 2010, Moscone West

061IC
Evaluation & Management of Urinary Tract Bleeding: From Asymptomatic Microhematuria to Intractable Hemorrhagic Cystitis
Stephen Boorjian, Course Director
Daniel Barocas, Jay Raman
Room 2008, Moscone West

062IC
AUA Guidelines on Non-Muscle Invasive Bladder Cancer
Sam Chang, Course Director
James McKeon, Chad Ritch
Room 2004, Moscone West

063IC
Prostate Cancer Update
William Catalona, Course Director
Douglas Dahl, Stanley Lieu, Stacy Loeb, Robert Nadler, Russell Sznulewitz
Room 2002, Moscone West

064IC
Complications of Incontinence & Prolapse Surgery: Evaluation, Intervention & Resolution – A Review from Both Specialties
Roger Domchowski, Course Director
Alexander Gomelsky, Mickey Karam, William Stuart Reynolds
Room 2009, Moscone West

10 am–12 pm

065IC
Prostate Cancer Focal Therapy: Is It the Right Time for Your Practice?
John Davis, Course Director
Peter Pinto, Ardeshir Rastinehad, Ashutosh Tewari
Room 2010, Moscone West

066IC
Primary & Reoperative Hypospadias Repair: An Evidence-Based Approach
Nicol Bush
Room 2008, Moscone West

067IC
Management of Non-Muscle Invasive Bladder Cancer: Practical Solutions for Common Problems
Kamal Pohar, Course Director
Ashish Kamat, Cheryl Lee, J. Alfred Witjes
Room 2006, Moscone West

068IC
Nutrition Counseling for the Prevention of Urolithiasis
Patrick Lowry, Course Director
Sutchin Patel, Kristina Penniston
Room 2002, Moscone West

1:30–3:30 pm

070IC
Technical Tips & Tricks in Male Infertility: A Guide for the Practicing Urologist
Peter Schlegel, Course Director
Sheldon Marks, Robert Oates
Room 2010, Moscone West

071IC
Controversies in Prostate Biopsy
Allen Settel, Course Director
Jeffrey Tomaszewski
Room 2008, Moscone West

072IC
Geriatric Urology: Basic Principles for Urologic Practice
Tomas Griebling, Course Director
Jonathan Bergman, Camille Vaughan
Room 2006, Moscone West

073IC
AUA Guidelines 2018: The Evaluation & Management of Testosterone Deficiency: What You Need to Know
John Mulhall, Course Director
Robert Brannigan, Landon Trost
Room 2004, Moscone West

074IC
AUA CRPC Guidelines
Michael Cookson, Course Director
David Jarrett, Adam Kibel
Room 2002, Moscone West

4–6 pm

075IC
Complications of Robotic Urological Surgery, Prevention, Recognition & Management
Rene Sotelo, Course Director
Monish Aron, Reza Ghavamian, Joseph Smith
Room 2010, Moscone West

076IC
AUA Guidelines 2018: Erectile Dysfunction
Arthur Burnett, Course Director
Ajay Nehra, Hossein Sadeghi-Nejad
Room 2008, Moscone West

077IC
Laparoscopic Donor Nephrectomy
Mahesh Desai, Course Director
John Barry, Avind Ganpule, Abraham Kurien
Room 2006, Moscone West

078IC
Management of Prostate Cancer: A Case-Based Approach with Emphasis on Integrating New Molecular Diagnostics into Clinical Practice
Eric Klein, Course Director
Andrew Stephenson
Room 2004, Moscone West

079IC
Surgical & Medical Management of High-Risk Renal Cell Carcinoma: New Paradigms for Treatment
Benjamin Lee, Course Director
A. Oliver Sartor, Chandra Sundaram
Room 2002, Moscone West

080IC
Practical & Evidence-Based Minimally-Invasive and Robotic-Assisted Surgery in Pediatric Urology
Patricio Gargollo, Course Director
Michael Ost, Aseem Shukla
Room 2009, Moscone West

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Monday, May 21

9:30 AM - 10:00 AM
Robotic-Assisted Partial Nephrectomy
Access: Tips and Tricks
Clayton Lau, MD

10:00 AM - 12:00 PM
Live Streamed Surgery:
Robotic-Assisted Radical Prostatectomy
Ronney Abaza, MD

12:30 PM - 2:30 PM
Live Streamed Surgery:
Robotic-Assisted Partial Nephrectomy
Ronney Abaza, MD

Learn more about the advanced technology you saw this week at DVURO.com

Important Safety Information
For Important Safety Information, indications for use, risks, full cautions and warnings, please refer to www.davincisurgery.com/safety and www.intuitivesurgical.com/safety.

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