Last year we introduced you to the inaugural issue of the Upstate Urology Updates. This publication is our way of communicating the ongoing progress from the region's only academic urology program. In the last several months, many great things have happened within our department that we are excited to share with you.

In this edition of Upstate Urology Updates you will read about our newest team members, who include surgeons and researchers as well as new clinical and clerical support staff. You will also read about many new treatments and programs that are now offered by our team for patients in Central New York.

We are also happy to share the news about ground breaking new procedures that we have performed at Upstate and our research with identification of key proteins or cellular enzymes that could be effective drug targets in urologic and other cancers. We will also update you on our community services as well as the national and international prominence that the Upstate Urology faculty has gained through publications and presentations in top medical journals as well as at conferences throughout the world.

We are also happy to share news of our expansion with the opening of our new office in Auburn, as well as our expansion in the Rome area. We are also including some interesting and educational facts about certain common urologic problems that you and our patients may find educational.

We hope you enjoy this edition of Upstate Urology Updates and thank you for all of your support and being part of this wonderful community with us.

Sincerely,

Gennady Bratslavsky, MD
Professor and Chair
Department of Urology
SUNY Upstate Medical University
Our group of over 80 caring and highly qualified physicians, scientists and other clinical personnel provide the most comprehensive and integrative services in the area's covering anything from the most common urologic conditions to the most complex urologic problems requiring specialized training.

Our department is a well-integrated group of 26 physicians, 5 midlevel providers, 7 PhD/scientists, 16 nurses, 5 graduate and postgraduate students, 26 administrators, medical assistants and dedicated research coordinators.

We utilize the newest technology available in the world and perform the most advanced and sophisticated clinical and basic research along with teaching a new generation of physicians, surgeons and scientists.
UPSTATE UROLOGY IS PROUD TO INTRODUCE THE NEW MEMBERS OF THE TEAM FOR SURGERY.

NATASHA GINZBURG, MD
Assistant Professor
Female and reconstructive urology, urinary incontinence in women, pelvic floor treatment and neuourology

MATTHEW D. MASON, MD
Assistant Professor
Pediatric urology, treatment of hernias and hydroceles in children, robotic surgery in children, urinary tract infections and penile abnormalities

RYAN SIDEBOTTOM, DO
Assistant Professor
All urologic needs, general urology, male health, urologic oncology, enlarged prostate, kidney stones. Dr. Sidebottom sees patients at Upstate Urology of Auburn office in Auburn, NY

FOR QUESTIONS OR TO MAKE A REFERRAL, CALL 315-464-1500
WE ARE PROUD TO WELCOME MEMBERS OF SURGERY AND RESEARCH.

RESEARCH

HEIDI HEHNLY, PHD
Assistant Professor, Department of Cell and Developmental Biology and Urology
Research: Mitotic signaling in cancer

MARGARET FORMICA, PHD
Assistant Professor, Departments of Public Health and Preventive Medicine and Urology
Research: Epidemiology of prostate and kidney cancers, patient navigation, medical decision making and treatment choice

TELISA STEWART, DRPH, MPH
Assistant Professor, Department of Public Health and Preventive Medicine and Urology
Affiliated Investigator - U.S. Department of Veterans Affairs
Research: Medical decision making and treatment choice, patient navigation, mental health, genitourinary oncology, rurality, social of health, behavioral interventions, community based participatory research and patient reported information.
Pelvic floor disorders in women can range from incontinence to pelvic pain to prolapse of the pelvic organs. In 2010, there were 28.1 million women with a pelvic floor disorder in the United States. Current projections expect an increase to 43.8 million women by 2050. Options for treatment include watchful waiting as well as specific behavioral modifications. Pelvic floor muscle exercises, either self-directed or under the guidance of a skilled pelvic floor physical therapist, can also improve symptoms related to pelvic floor disorders. In some cases, medications or a pessary may be helpful. For many patients, the choice to have surgical correction of their prolapse is the best option. The type of procedure that is appropriate varies depending on both patient and prolapse-specific factors.

Pelvic prolapse can occur either in the anterior compartment (often called a cystocele), the posterior compartment (often called a rectocele or enterocele), or in the apical compartment (uterine or vaginal vault prolapse). One, all or any combination can occur in the same patient.
Surgical treatment for prolapse can be performed in a minimally invasive fashion, either via a vaginal incision or utilizing the Da Vinci robotic platform for an abdominal approach. The gold standard for prolapse repair is the abdominal sacrocolpopexy. In this procedure, the prolapsed vagina is secured to the anterior longitudinal ligament at the level of the sacral promontory via a graft.

A vaginal approach can also be performed for prolapse in any compartment without the use of graft material. In these procedures, by strengthening and recreating the pubocervical, rectovaginal, sacrospinous or uterosacral fascia and ligaments, the original anatomy is restored.

Women who suffer with pelvic floor disorders have many options for treatment for their bothersome symptoms. Working together with the patient, the best solution can be found to achieve optimal outcomes.
Pediatric urology is a field that encompasses any condition affecting the urinary system or external genital anatomy in children, and thus includes a wide spectrum of conditions such as hydronephrosis, neurologic bladder dysfunction, urinary tract infections, penile anomalies, desired circumcisions, inguinal hernias, testicular problems, and other congenital abnormalities of varying severity. Dr. Jonathan Riddell and Dr. Matthew Mason are our two pediatric urologists specializing in these conditions. They offer a wide variety of treatments, including minimally invasive techniques such as robotic and laparoscopic surgery and endoscopic procedures.

One condition encountered frequently in pediatric urology is cryptorchidism, frequently referred to as undescended testicles. This is a relatively common condition, estimated to occur in up to 4% of full-term male newborns and up to 45% of pre-term male newborns. Many of these patients may have spontaneous descent of their testicle(s) over time, but an estimated 60% (or more in some studies) will ultimately require surgical treatment to relocate testicles that will not descend on their own in order to reduce long-term risks of malignancy and impaired fertility.

In 2014, the American Urological Association published new guidelines on the evaluation and treatment of cryptorchidism. These guidelines state that all boys with cryptorchidism persistent or diagnosed after 6 months of age should be referred to a surgical specialist (such as a Pediatric Urologist) for evaluation, as these testicles are unlikely to descend spontaneously. Immediate consultation should be sought for any infant with concern for a disorder of sex development such as bilateral nonpalpable testicles.
Included in these guidelines is the recommendation against ordering ultrasound evaluation before specialist referral, as these tests rarely assist in decision making and treatment of these patients and have also been found to have high rates of false positive and false negative results. Scrotal ultrasounds can be a costly examination, and it is important to consider the necessity of such testing in the age of rising health care costs and value-based purchasing.

Dr. Riddell and Dr. Mason are experts in evaluating undescended testicles and deciding whether a child does or does not require surgical treatment. They both offer treatment for this condition via laparoscopic or conventional surgical techniques. Please feel free to refer any patient or contact us with a question about their testicular exam findings or whether further workup or possible surgical treatment is necessary.
NEW PROSTATE SURGERY OPTION ONLY AVAILABLE IN THIS AREA AT UPSTATE

Within the past year a unique procedure for treating enlarged prostate was introduced to the area and is only offered at Upstate University Hospital’s Community Campus. Holmium laser enucleation of the prostate (HoLEP) is a surgical procedure that uses a high-power laser to precisely remove the obstructive portion of an enlarged prostate in its entirety and it is offered to patients by Upstate Assistant Professor Urology Jessica Paonessa, MD.

Should a patient need surgical treatment for an enlarged prostate, the HoLEP procedure is the only minimally invasive option that completely removes the obstructing tissue within the prostate via anatomic dissection. As such, there is a very low reoperation rate and an even lower rate of blocking tissue regrowth.

When the prostate is enlarged, the ability for urine to flow is hindered and often causes a weak stream of urine, a stream that starts and stops, frequency and urgency. These symptoms can also interfere with sleep. In all, the enlarged prostate can affect lifestyle and the ability to perform daily activities.

An enlarged prostate is diagnosed through history, physical exam, ultrasound, urodynamic studies, uroflow and other in-office tests. Typically, a non-surgical treatment option is prescribed to patients before surgery. Medications can offer temporary relief from the symptoms associated with the condition.

“For many men, taking medicine for this condition isn’t something they want to do long-term, and for other patients, the medications may not be effective,” said Paonessa. “In these cases, the next step is to remove the obstructive tissue surgically.”

First introduced as a surgical option for enlarged prostate in 1998 in North America, HoLEP is a minimally invasive surgical procedure that is performed by entering the prostate through the urethra, which is the tube that carries urine and is surrounded by the prostate. This unique procedure utilizes a laser to separate the obstructive tissue from the original prostate. The laser features exact precision, yielding minimal bleeding for the patient following surgery. After the laser is used, another device (a morcellator) cuts the tissue into small pieces and extracts it.
using suction. Through this unique system, all of the removed tissue is preserved and sent to pathology for examination.

“Unlike other transurethral prostate surgeries, HoLEP is an anatomic dissection,” said Paonessa. “This allows for a thorough cleanout of the blocking tissue and offers patients many benefits.”

Following the procedure, the original prostate, which is left intact, retracts to its original size and allows the patient to regain the ability to urinate without difficulty. Patients remain in the hospital for approximately 24 hours and are able to return to their daily activities without restrictions in seven to 10 days.

“The results of the surgery are long-lasting and patients experience life-changing results,” said Paonessa. “They can travel, sleep through the night and return to their normal daily activities.”

Candidates for the procedure are men of any age who have an enlarged prostate. The HoLEP procedure can also be performed on most patients with comorbidities.

Dr. Paonessa is fellowship trained in surgery for enlarged prostates as well as in kidney stone surgery and specializes in complex stone disease and metabolic management for kidney stone prevention.

For information about urology at Upstate, visit www.upstate.edu/urology.
ERECTILE DYSFUNCTION: PREVALENT AND VERY TREATABLE

More than two decades ago, erectile dysfunction (ED) was defined by the National Institutes of Health (NIH) as the "consistent inability to obtain and maintain an erection satisfactory for sexual function."1 Six years later, in 1999, the World Health Organization (WHO) further defined sexual health as a "fundamental human right."2 Essentially, to feel dissatisfied with erection-related sexual function. No longer is an extensive workup (penile Doppler, penile injections, cavernosography, or pudendal artery arteriograms) necessary to determine the exact reason for erection loss. In part, this is because the treatment options are exactly the same for both ED etiologies—constricted arterial inflow or venous leakage. Attempts to surgically correct vascular causes for ED are no longer an option, as they simply do not work. The only effective surgical intervention is a penile implant.

Treating ED is straightforward and follows a simple three-tiered algorithm. After ruling out low libido/andropause, depression and premature ejaculation (where detumescence occurs due to an “early” orgasm—not true ED), men should consider starting with PDE-5 inhibitor pills. Oral agents are contraindicated for treating some men with ED. The Princeton Guidelines suggest that the following men are at high risk for a cardiac event and should not be exercising—including sexual activity—when the following are present: (1) unstable angina, (2) untreated myocardial infarction within two weeks, (3) class IV congestive heart failure, and (4) uncontrolled hypertension.3 Specific to PDE-5 inhibitor use, exposure to nitrates/nitroglycerine is a strict contraindication. 70 %
of men will realize success using an oral agent. For non-responders, consider trying a different PDE-5 inhibitor while re-educating the patient on proper use of the pill. If this does not work, move on to second-line therapies.

Second-line therapies for ED are much more effective, but come with greater expense and more invasiveness. These therapies include a vacuum erection device, a urethral suppository (MUSE), and penile injections. The vacuum works well but can be difficult to master and is contraindicated in patients on Coumadin. MUSE is a prostaglandin-based treatment that should never be used with a pregnant partner as premature labor may ensue. Consider starting with the maximum dose (1,000 mcg) of MUSE, as its efficacy is not much better than a placebo. Finally, penile injection therapy is a good option but should be administered with the supervision of a urologist as priapism can occur if dosing guidelines are not carefully followed. Use of second-line therapies can be effective for years. Expense, a lack of spontaneity, and worsening ED will cause many men to pursue the third-line treatment option: surgery.

Surgery, as a third-line intervention, replaces the erectogenic corporal bodies with a prosthetic sleeve. For this reason, all other options listed above are no longer an option to a man postoperatively. Having said this, patient and partner satisfaction after an implant is 92 and 90 percent respectively. In fact, with the ease of use, reliability and improved spontaneity, most men wish they had chosen the implant sooner. Functionally, the implant is designed to provide a discrete, firm erection without changing baseline orgasm or sensitivity. Penile implant surgery takes about 45 minutes to perform, and after, a 23-hour stay, discharge to home for a 10-14 day recovery should be anticipated. Infection is the most concerning risk for any implant surgery. Current penile implant models are coated with antibiotics—minimizing infection rates to fewer than 3 percent. In the rare event a patient becomes infected, the entire device needs to be removed since the offending bacteria will create a biofilm—effectively sheltering the bacteria from administered antibiotics. With a modern technique known as the Mulcahy Washout, the infected device can be removed and replaced with a brand-new device during a single operative setting. This washout technique allows for a more rapid return to sexual function, with preservation of penile length and less risk for penile scarring and is successful 70 percent of the time.

In conclusion, ED is a prevalent yet very treatable condition. Restoring erectile function and quality of life for affected men and their partners proceeds along a simple three-tiered treatment algorithm. As treatment progresses to penile injections and implant surgery, urological consultation is suggested. Upstate Urology is proud to offer expertise in advanced treatment options for ED. Dr. Trussell has extensive experience with treating both high-risk and complicated implant clients. He looks forward to working with you to provide all options for men suffering from erectile dysfunction.

PROSTATE CANCER: NEW APPROACH TO DETECTION

The current standard of care for prostate cancer diagnosis involves both blood testing (PSA and others) and biopsy tissue sampling (ultrasound guided biopsy) which are both known to be imprecise. Blood testing, while useful, is well known to have both false positive and false negative results. In addition, standard approaches to biopsy using ultrasound guidance can result in considerable underestimation of the total amount of cancer in the prostate gland, including missed cancers. This is mainly due to ultrasound inability to identify cancer within the gland (it can see the prostate but not the cancer).

At Upstate, we strive to overcome these limitations to current standards. Utilizing techniques developed at the National Cancer Institute, we utilize state-of-the-art 3 Tesla multiparametric MRI to identify areas within the prostate gland that are likely to harbor cancer. Next, we have implemented special biopsy equipment (Uronav MRI/US fusion prostate biopsy), which can use these MRI-based maps to guide the needle directly into the area of suspicion. This strategy allows us not only to avoid missed cancers, it also gives us the best understanding of how much and how aggressive the cancer truly is within the prostate. (see figure)

By implementing this new approach, we have been able to identify men who have otherwise had significant cancers that have been undetected using standard techniques. More importantly, we are more confident that those men identified with low-risk cancers do not have hidden areas of higher-risk disease. As a result, these men can be followed without invasive treatments that can potentially harm (including both urinary and sexual quality of life). In this way, we are able to personalize the treatment plan for all men and avoid both overtreatment and undertreatment.
Kidney cancer also known as renal cell carcinoma (RCC) is one of the most common urologic cancers that unfortunately touches more and more lives in Upstate New York as well as nationally. The incidence of this often deadly disease has been increasing by 2% per year for the past several decades. The ever growing number of CT scans and other radiologic tests being performed is the main reason for this concerning rise. RCC represents 2-3% of all cancers in adults. It is the seventh most common cancer in men and the ninth most common cancer in women. Kidney cancer is the most lethal of common urologic cancers, with approximately 35% of patients dying from the disease at five years. Half of the patients presenting with RCC have their cancer confined to the kidney. 25% have disease that is locally advanced and another 25% have kidney cancer that has spread or metastasized to other organs.

Kidney cancer is one of several types of cancer that does not respond to traditional treatments such as chemotherapy and radiation therapy. RCC is a surgical disease, and in most cases it must be “cut out” to achieve cure. As recently as 10 to 15 years ago, the diagnosis of RCC led to a loss of a kidney with a resulting huge scar on one’s flank and months of recovery. Fortunately, evolving surgical techniques and improved technology allow for, minimally invasive approach to renal cell carcinoma with the ability to save as much of the healthy kidney as possible. The vast majority of kidney surgery at Upstate is now done using the daVinci robot. The benefits of this approach have been well researched and documented. Patients have shorter convalescence, less pain and much better cosmetic outcomes. In addition, the ability to perform partial nephrectomy (preserving healthy kidney by removing only the cancerous tumor) affords the patient a better overall kidney function. This translates to a smaller risk of developing cardiovascular disease, being hospitalized for causes unrelated to kidney cancer and even lower rates of death compared to patients with poorer renal function.
Physicians at SUNY Upstate Medical University in Syracuse describe in the December issue of Urology the first case in the world in which doctors used minimally invasive robotic surgery to perform a radical nephrectomy (removal of entire kidney) with a level III inferior vena cava thrombectomy (removal of a tumor from the largest vein that carries blood to the heart). The procedure also included the removal of numerous lymph nodes. The surgery was performed in 2013 and is featured on the cover of the current issue of Urology.

Of special note in this case was the size of the tumor thrombus—11 centimeters. Prior to this operation the largest inferior vena cava (IVC) tumor removed by robotic surgery has been reported in literature as five centimeters (level II).

In about 10 percent of kidney cancer cases, tumors grow and enter the IVC. Eventually, this tumor can reach the patient’s heart with deadly consequences. Surgery to remove this tumor can be complicated depending on its proximity to the heart. In the case performed at Upstate, doctors say the tumor came within two inches of the patient’s heart.

Previously, removal of this type of tumor was done by making large incisions that often required patients to remain in the hospital for many days or even weeks. Recently, with the introduction of the robotic-assisted surgery, a few centers have performed this tumor removal without large incisions allowing patients to go home earlier than after traditional open approach.

The Upstate case is important in that it expands the surgical limits of minimally invasive laparoscopic and robotic surgery, said Gennady Bratslavsky, MD, chief of Urology at Upstate, who authored the case report with Jed-Sian Cheng, MD, MPH.

Robotic surgery for this complex case provided the benefit of three-dimensional vision, articulating instruments and precise instrument control and was able to handle challenging and delicate procedures, Bratslavsky said.

The successful use of robotic surgery in this complex case also can be seen by the relatively short hospital stay for the patient. In this case, the patient was discharged to home after 36 hours with no postoperative complications.

While this report offers encouraging progress for using robotic-assisted surgery in a complex IVC thrombus case, Bratslavsky warns that maximum caution should be exercised when using this approach and that centers providing this surgical option have the appropriate infrastructure for management of these complex patients.
UPSTATE OFFERING DEFINITIVE TREATMENT OF URETHRAL STRICTURES

The Male Reconstructive Center was established in August 2012 to satisfy the growing need for urological reconstruction in Upstate New York. The director of the male reconstruction, Dr. Dmitriy Nikolavsky, joined SUNY Upstate Medical University in the summer of 2012 after finishing a reconstructive urology fellowship at the University of Colorado. Dr. Nikolavsky specializes in urethral reconstruction, male incontinence, cancer survivorship and transgender urological reconstruction. While at SUNY Upstate, he has described several reconstructive procedures, including one for the correction of an otherwise unsalvageable devastated urethra. Another important publication this year was on successful reconstruction of sphincteric urethra, a location that used to be a taboo for operations due to fears of various complications.

In general, urethral stricture disease, a scar in the urethra causing urinary obstruction, is a relatively common condition that has plagued men for millennia. The old-fashioned treatments such as urethral dilations or urethrotomies (internal cuts) are known to be minimally effective, with cure rates of only 0-12%. The newer reconstructive techniques are called urethroplasties and are now being routinely performed at Upstate by Dr. Nikolavsky. These procedures are plasticsurgery techniques applied to urethral reconstruction. Urethroplasty success rates are ranging from 75-98%, depending on the causes and the severity of stricture disease. In the simplest cases, the scarred part of the urethra is removed and the healthy edges are sutured together. In more complex situations the diseased portion of the urethra is augmented with healthy tissue flaps or grafts, such as oral mucosa (Fig. 1-4).

As complex as they sound, these are relatively simple operations routinely performed as outpatient or short-stay surgeries. The patients may choose to go to light duty work within one week. As stated earlier, these procedures have high success rates, low complication rates, and most importantly, extremely high rates of patient satisfaction and positive impact on quality of life.

Operative steps (from J. Urol publication): 1) Removal of the scar tissue while preserving the rest of the urethra. 2) Placement of oral mucosal graft to augment the urethra.
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Oleg Shapiro, MD
Associate Professor
Departments of Urology and Radiation Oncology
SPECIALTIES: urologic oncology and endourology, robotic and laparoscopic surgery of prostate, kidney, bladder and adrenal; renal stone disease

In Leszek Kotula’s lab, our work focuses primarily on the protein Abi1 and its role in prostate cancer progression and resistance to androgen deprivation therapy. Prostate cancer is the most commonly diagnosed non-cutaneous cancer in American men and is the second-leading cause of cancer-related death. Dr. Kotula discovered Abi1 and subsequently found that its deletion is associated with development of prostate cancer. In cells, Abi1 is usually found as a member of the WAVE complex, which is involved mainly in actin cytoskeleton dynamics and is important for cell shape and migration. Current projects in the lab utilize human tumor cell lines and mouse models to examine Abi1’s role in prostate cancer. We are studying how different isoforms of Abi1 behave and how they regulate important cell processes. We are also examining the role Abi1 plays in cell-cell adhesion and migration, processes that are important to define the metastatic potential of cancer cells. Lastly, we are studying how Abi1 may play a role in the development of castration resistance in prostate cancer for which there currently is no cure. We are also interested in the roles of other WAVE complex members in prostate cancer, glioblastoma, as well as in breast and pancreatic cancer. Ultimately, we hope to better understand the effects of dysregulated WAVE complexes to identify prognostic markers and treatment targets to improve survival for prostate cancer patients.
Researchers at the SUNY Upstate Medical University have found that a key cellular enzyme, c-Abl, could be an effective drug target in cancer cells for urologic cancers, such as prostate and kidney. Ongoing research into treatments for kidney cancer is especially important since kidney cancer is known to be resistant to current chemotherapy and radiation.

In this study, researchers uncovered a mechanism whereby the heat shock protein 90, or Hsp90, could be disrupted or disengaged from its role as chaperone of cancer cells. By acting as a guardian of cancer cells, Hsp90, role is to help cancer cells grow and thrive. This disruption is essential to halt the growth of and kill the cancer cells.

Previous research showed that the disruption of Hsp90 from its activator, Aha1, sensitizes cancer cells to Hsp90 drugs. Upstate researchers used specific compounds aiming at the regulator of Aha1, known as c-Abl, to successfully disconnect Aha1 from Hsp90. With the regulator Aha1 disrupted, researchers were able to show that Hsp90 drugs, can be used more effectively in inhibiting kidney cancer cells growth. Hsp90 drugs have been tested successfully in clinical trials for breast cancer, lung cancer, leukemia (multiple myeloma) and gastric cancer.

Upstate’s research was led by Mehdi Mollapour, PhD, an assistant professor of urology and biochemistry and molecular biology; Diana Dunn, a graduate student in the laboratory; and Mark Woodford, a research assistant; and was completed in collaboration with Dimitra Bourboulia, PhD, an assistant professor; and Gennady Bratslavsky, MD, professor and chair of urology, all at Upstate Medical University. Their findings appear in Cell Reports.

According to Mollapour, the findings of this study will not only “help enhance the efficacy of Hsp90 drugs in the clinic but also lay a foundation for future studies aiming to understand combination therapy with Hsp90 drugs.”

The scientific community is working with measured enthusiasm studying and testing ways to disrupt Hsp90’s role as a guardian of cancer cells, thereby enabling cancer survival. The research at Upstate used kidney tumors from patients that were treated by urologic surgeons at Upstate Urology.

About 61,000 new cases of kidney cancer are diagnosed each year, with about 14,000 people dying from the disease. The most common form of kidney care is renal cell carcinoma, which is resistant to chemotherapy. Mollapour says, “This type of study brings Hsp90 drugs closer to a clinical trial testing in kidney cancer patients.”
TWO INTERNATIONAL CONFERENCES HELD AT UPSTATE

THE 6TH BHD SYMPOSIUM AND 1ST INTERNATIONAL UPSTATE KIDNEY CANCER SYMPOSIUM

Two international conferences at Upstate received support from the Department of Urology. Gennady Bratslavsky, MD, professor and chair, and Mehdi Mollapour, PhD, assistant professor, were chairs of the organizing committee and conference hosts for the 6th BHD Symposium and 1st International Upstate Kidney Cancer Symposium, which took place in September. The conference offered presentations on scientific and clinical developments of Birt-Hogg-Dubé (BHD) syndrome and renal cell cancer. The invited speakers include the leading experts in this field, and the symposium promoted the discovery of drug development, therapeutics and intraoperative management of the patients with BHD and multifocal renal tumors.

While the symposium content was aimed at researchers, clinicians and academics, the fourth day of the conference was dedicated to the patients who will have the opportunity for an informal question-and-answer session with the experts about how best to treat and manage the health problems associated with BHD and kidney cancer.

The international panel of scientific and medical experts included a keynote from Dr. Marston Linehan, a chief surgeon at the National Cancer Institute’s Center for Cancer Research. The conference was previously held in Denmark, Washington, D.C., the Netherlands, Cincinnati and Paris.

PHEOCHROMOCYTOMA AND PARAGANGLIOMA (PEHO/PARA) 2015 INTERNATIONAL CONFERENCE

The Upstate Cancer Center and Upstate Urology Department hosted the Pheochromocytoma and Paraganglioma (pheo/para) 2015 International Conference in November on the campus of Upstate Medical University.

Experts spoke on various topics related to pheo/para, including pediatric management of pheo/para, modern imaging, genetic implications and general wellness for pheo/para patients. Patients were invited to the conference to receive the latest updates on management of this condition.

Pheo/para are neuroendocrine tumors that can present challenges to treat and diagnose. The incidence of pheo/para is two to eight per million people per year, with cases occurring in both men and women and equally across all races. Many patients present with one adrenal tumor, which is removed and the cause is not determined.

Among the conference participants were John H. Sipple, MD, whose pioneering work in this field led to the naming of Sipple Syndrome, and keynote presentation by Karel Packak, MD, a senior investigator at the National Institutes of Health.

Participants in the symposium were able to network, exchange ideas and share challenges. Leading scientists, surgeons and experts in the field all have a united goal of bringing innovative and progressive treatments to patients with BHD and kidney cancer.
Upstate Urology physicians are also faculty members at Upstate Medical University. As part of the only academic medical university in Central New York, our doctors are also engaged in advancing education, research and best practices in their field.

These activities on a state, national and international level — including presentations, publications, research grants and board memberships — have a direct effect on supporting excellence in patient care right here at Upstate University Hospital.

AWARDS

Gennady Bratslavsky, MD, Urology, received the Distinguished Speaker award at the Bon Secours Cancer Institute Inaugural Summit, Richmond, Va., October 10, 2014.

Imad Nsouli, MD, Urology, received the Best Program Director of the Year award 2013-2014 from the Graduate Medical Education Office, SUNY Upstate Medical University.

NATIONAL LEADERSHIP

Gennady Bratslavsky, MD, was elected to the Executive Committee of the Endourological Society, Seaford, NY.

Gennady Bratslavsky, MD, and Oleg Shapiro, MD, served on the Board of Directors for the Northeast American Urological Association in 2014.

Dmitriy Nikolavsky, MD, Urology, Organizing of Dr. Kulkarni & Barbagli Lecture, Reconstructive Urology Lecture Series, held at Upstate Urology, Upstate Medical University Hospital, May 20 and 21, 2014

RESEARCH GRANTS AWARDED

Mehdi Mollapour, PhD, Urology, PI | Carol M. Baldwin Breast Cancer Research Fund
Role of PP5 phosphatase in tamoxifen resistance in breast cancer | September 2015 to September 2017, 50,000

PUBLICATIONS


Abouelleil M, Chelluri R, Daugherty M, Bratslavsky G, Shapiro, O. In obese patients, the distance between skin and renal collecting system, changes with the position of the patient from supine to prone. JEndourol. 2015 July;29(7):760-3. doi: 10.1089/end.2015.0075. PMID: 25809826.


something they want to do long-term, and for other from the symptoms associated with the condition. before surgery. Medications can offer temporary relief surgical treatment option is prescribed to patients an enlarged prostate is diagnosed through history, and the ability to perform daily activities. sleep. In all, the enlarged prostate can affect lifestyle and urgency. These symptoms can also interfere with of urine, a stream that starts and stops, frequency and an even lower rate of blocking tissue regrowth. the obstructing tissue within the prostate via anatomic minimally invasive option that completely removes enlarged prostate, the HoLEP procedure is the only in its entirety and it is offered to patients by Upstate Community Campus. Holmium laser enucleation Within the past year a unique procedure for treating at upstate only available in this area new prostate surgery option cuts the tissue into small pieces and extracts it laser is used, another device (a morcellator) laser features exact precision, yielding minimal obstructive tissue from the original prostate. The unique procedure utilizes a laser to separate the urethra, which is the tube that carries Urinary flow due to obstructive lower urinary tract symptoms (LUTS). Symptoms of LUTS are common and may be caused by benign prostatic hyperplasia (BPH), which is the most common cause of LUTS in men. A HoLEP procedure involves the use of a holmium laser, which is a type of laser that is used to vaporize tissue. The laser is guided through the urethra and used to remove the obstructing tissue from the prostate. This procedure is minimally invasive and is performed on an outpatient basis. The HoLEP procedure is a surgical option for men with LUTS caused by BPH. It is performed by an assistant professor of urology, Jessica Paonessa, MD. "Partial Nephrectomy for Multifocal Renal Cell Carcinoma" at the NY Section American Urological Association 113th Annual Meeting, Lisbon, Portugal, September 6-9, 2015: "Partial Adrenalectomy" at the NY Section American Urological Association 113th Annual Meeting, Lisbon, Portugal, September 6-9, 2015. "Hereditary RCC and Principles of Management" at the XXV Congreso Peruano de Urologia, Trujillo, Peru, August 6-8, 2015. "IVC Thrombectomy: Technique and Outcomes" at the XXV Congreso Peruano de Urologia, Trujillo, Peru, August 6-8, 2015. "Treatment of Metastatic Kidney Cancer: 2015 Update" at the XXV Congreso Peruano de Urologia, Trujillo, Peru, August 6-8, 2015. "Partial Nephrectomy for Tumors Greater Than 7cm" at the XXV Congreso Peruano de Urologia, Trujillo, Peru, August 6-8, 2015. "Management of Local Recurrence After Radical Nephrectomy and Renal Carcinoma Multifocal" at the XXV Congreso Peruano de Urologia, Trujillo, Peru, August 6-8, 2015. "Adjuvant radiotherapy after radical prostatectomy vs. rescue when, how?" atposter presentations: International


PRESENTATIONS: INTERNATIONAL

World Congress of Endourology 2014, Taipei, Taiwan, September 3-5, 2014.


PRESENTATIONS: NATIONAL


PRESENTATIONS: STATE AND LOCAL


Gennady Bratslavsky, MD, Chair, Urology, presented “Role of a surgeon in management of metastatic RCC”. At Sixth BHD Symposium and First International Upstate Kidney Cancer Symposium. Syracuse, NY. September 23 –26, 2015.

Mehdi Mollapour, PhD, Urology, presented “Inhibition of the Hsp90 Molecular Chaperone ATPase activity by the FNIPs Co-chaperones”. At the Sixth BHD Symposium and First International Upstate Kidney Cancer Symposium. Syracuse, NY. September 23 –26, 2015.
Pediatric urology is a field that encompasses any condition affecting the urinary system or external genital anatomy in children, and thus includes a wide spectrum of conditions such as hydronephrosis, neurologic bladder dysfunction, urinary tract infections, penile anomalies, desired circumcisions, inguinal hernias, testicular problems, and other congenital abnormalities of varying severity. Dr. Jonathan Riddell and Dr. Matthew Mason are our two pediatric urologists specializing in these conditions. They offer a wide variety of treatments, including minimally invasive techniques such as robotic and laparoscopic surgery and endoscopic procedures.

One condition encountered frequently in pediatric urology is cryptorchidism, frequently referred to as undescended testicles. This is a relatively common condition, estimated to occur in up to 4% of full-term male newborns and up to 45% of pre-term male newborns. Many of these patients may have spontaneous descent of their testicle(s) over time, but an estimated 60% (or more in some studies) will ultimately require surgical treatment to relocate testicles that will not descend on their own in order to reduce long-term risks of malignancy and impaired fertility.

In 2014, the American Urological Association published new guidelines on the evaluation and treatment of cryptorchidism. These guidelines state that all boys with cryptorchidism persistent or diagnosed after 6 months of age should be referred to a surgical specialist (such as a Pediatric Urologist) for evaluation, as these testicles are unlikely to descend spontaneously. Immediate consultation should be sought for any infant with concern for a disorder of sex development such as bilateral nonpalpable testicles.
Surgical treatment for prolapse can be performed in a minimally invasive fashion, either via a vaginal incision or utilizing the Da Vinci robotic platform for an abdominal approach. The gold standard for prolapse repair is the abdominal sacrocolpopexy. In this procedure, the prolapsed vagina is secured to the anterior longitudinal ligament at the level of the sacral promontory via a graft. A vaginal approach can also be performed for prolapse in any compartment without the use of graft material. In these procedures, by strengthening and recreating the pubocervical, rectovaginal, sacrospinous or uterosacral fascia and ligaments, the original anatomy is restored.

Women who suffer with pelvic floor disorders have many options for treatment for their bothersome symptoms. Working together with the patient, the best solution can be found to achieve optimal outcomes.

Upstate’s Department of Urology was selected as Upstate Medical University’s Community Service Team of the Year for 2015. This award was presented to the Urology team and includes the Upstate Urology teams across multiple campuses and locations including, but not limited to, the downtown and community campus, the pediatric office, research and the clinical and administrative support teams.
Pelvic floor disorders in women can range from incontinence to pelvic pain to prolapse of the pelvic organs. In 2010, there were 28.1 million women with a pelvic floor disorder in the United States. Current projections expect an increase to 43.8 million women by 2050. Options for treatment include watchful waiting as well as specific behavioral modifications. Pelvic floor muscle exercises, either self-directed or under the guidance of a skilled pelvic floor physical therapist, can also improve symptoms related to pelvic floor disorders. In some cases, medications or a pessary may be helpful. For many patients, the choice to have surgical correction of their prolapse is the best option. The type of procedure that is appropriate varies depending on both patient and prolapse-specific factors.

Pelvic prolapse can occur either in the anterior compartment (often called a cystocele), the posterior compartment (often called a rectocele or enterocele), or in the apical compartment (uterine or vaginal vault prolapse). One, all or any combination can occur in the same patient.

Dr. Natasha Ginzburg joins us from Philadelphia, Pa. She completed her fellowship in female pelvic medicine and reconstructive surgery at Drexel University College of Medicine. Prior to the fellowship, her general urology training was performed at Albert Einstein Medical Center in the Bronx. She enjoys all areas of urology with a specific focus on female urology and complex pelvic floor reconstruction as well as treatment of pelvic organ prolapse and female incontinence.

Here are some highlights of their community involvement:

- The Paddle for the Cure for breast cancer research - the 2015 event raised more than $30,000 for the cause.
- Food Drive - the teams collected a total of 2,000 food items to be donated to Sarah House, the Ronald McDonald House and the food pantry in Oneida.
- Easter Baskets - this team collected various items to be donated to needy families.
- Zero Prostate Cancer Run - Upstate Urology has the largest team in the run.
- Gift Baskets - instead of a gift exchange among office staff, this team decided to collect money and purchase toiletries to be given to Sarah House. About $1,000 was raised, and more than 100 gift baskets were created.
- The LEON Festival - at the start of summer vacation, team members participated in the 2nd Annual LEON Festival at Onondaga Lake Park and distributed free health information and giveaways to parents and kids.
- A Run for Their Life for breast cancer - more than 20 team members raised $1,200.
- St. Baldrick’s - a single staff member had her hair shaved and, with the support of the Urology team, helped raise more than $4,000.
- The Heart Walk/Run - had a 10-member team from Urology that raised $1,200.
UPSTATE UROLOGY FACULTY

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health, genitourinary oncology,
rurality, social of health,
behavioral interventions,
community based participato-
yourself, penile abnormalities under Mason's areas of s

VOURGANTI, Paonessa and Byler.
Our group of over 80 caring and highly qualified physicians, scientists and other clinical personnel provide the most comprehensive and integrative services in the area’s covering anything from the most common urologic conditions to the most complex urologic problems requiring specialized training.

Our department is a well-integrated group of 26 physicians, 5 midlevel providers, 7 PhD/scientists, 16 nurses, 5 graduate and postgraduate students, 26 administrators, medical assistants and dedicated research coordinators. We utilize the newest technology available in the world and perform the most advanced and sophisticated clinical and basic research along with teaching a new generation of physicians, surgeons and scientists.

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**DAWN POST, PHD**
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**MARGARET FORMICA, PHD**
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**TELISA STEWART, DPH, MPH**
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**HEIDI HEHNLY, PHD,**  
Assistant Professor, Department of Cell and Developmental Biology and Urology  
**SPECIALTY:** Research: Mitotic signaling in cancer
Last year we introduced you to the inaugural issue of the Upstate Urology Updates. This publication is our way of communicating the ongoing progress from the region’s only academic urology program. In the last several months, many great things have happened within our department that we are excited to share with you.

In this edition of Upstate Urology Updates you will read about our newest team members, who include surgeons and researchers as well as new clinical and clerical support staff. You will also read about many new treatments and programs that are now offered by our team for patients in Central New York.

We are also happy to share the news about groundbreaking new procedures that we have performed at Upstate and our research with identification of key proteins or cellular enzymes that could be effective drug targets in urologic and other cancers. We will also update you on our community services as well as the national and international prominence that the Upstate Urology faculty has gained through publications and presentations in top medical journals as well as at conferences throughout the world.

We are also happy to share news of our expansion with the opening of our new office in Auburn, as well as our expansion in the Rome area. We are also including some interesting and educational facts about certain common urologic problems that you and our patients may find educational.

We hope you enjoy this edition of Upstate Urology Updates and thank you for all of your support and being part of this wonderful community with us.

Sincerely,

Gennady Bratslavsky, MD
Professor and Chair
Department of Urology
SUNY Upstate Medical University

* PGY indicates year after graduation from medical (post graduate) school.
FROM THE REGION’S ONLY ACADEMIC UROLOGY PROGRAM

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