# 63rd ANNUAL JAMES C. KIMBROUGH UROLOGICAL SEMINAR



# 2016 PROGRAM & ABSTRACT BOOK

January 13-17, 2016 Westin Riverwalk Hotel, San Antonio, Texas



**Society of Government Service Urologists** 

# 2016 PROGRAM BOOK



www.govurology.org

# **Scientific Program Committee:**

MAJ Steven J. Hudak, MC, USA LT COL Timothy M. Phillips, MC, USAF

**Disclosure:** The views and opinions expressed in this program book are those of the authors and do not necessarily reflect the official policy or position of the US Navy, Army, Air Force, the Department of Defense, or the U.S. Government.



# Welcome from the President, Thomas A. Rozanski, MD

Dear SGSU Members,

Welcome to San Antonio and the 63rd Annual Kimbrough Seminar. It is an honor to serve as the President of the Society of Government Service

Urologists. Dr. Steve Hudak and Dr. Timothy Phillips have put together an outstanding academic and social program, and the DeSantis Management Group has provided excellent administrative leadership and support. This should be a fabulous meeting. As the military, urology and medicine evolve, the Kimbrough Seminar will likewise change with the times. However, it remains a foundation of military urology, an excellent forum for education and training, and a wonderful opportunity to socialize and interact. The leadership and dedication of our active duty and retired membership ensures that the wonderful tradition of the Kimbrough meetings will continue to support the mission and camaraderie that is unique to military urology. Enjoy the meeting and your time in San Antonio.

With Best Regards,

Thomas A. Rozanski, MD San Antonio, TX



Welcome from the
Program Chairmen
Major Steven J. Hudak, MC, USA
LtCol Timothy M. Phillips, MC, USAF



Dear SGSU Members,

We would like to welcome you to the 63rd Annual Society of Government Service Urologists, James C. Kimbrough Urological Seminar in San Antonio. We thank our colleagues at the San Antonio Military Medical Center who assisted us in planning. We look forward to keeping our important traditions alive while maintaining a robust academic program this year.

Please join us at the Welcome Reception on Wednesday to kick off the meeting. We will have three full meeting days and Sunday is dedicated to the Mock Oral Boards and course summary for a total of 24.5 hours of CME. Thursday evening is always a highlight with the GU Bowl and Friday evening will be a free night to enjoy San Antonio scenary and restaurants including the historic Riverwalk.

We will begin our meeting with opening remarks by SGSU President, Dr. Thomas Rozanski followed by AUA Immediate Past President Dr. William Bohnert. Our Scientific Program continues to allow every resident and staff the opportunity to present original research at podium and poster sessions. We are also honored to have a distinguished group of visiting faculty that will focus on state-of-the art discussions and highlight best practices and new research in urology. Special topic lectures and industry programs will round out our meeting. As usual, we will include ample time for audience questions and discussions of challenging clinical scenarios.

Finally, please join us on Saturday at 6:30 PM for the Kathy and Preston Littrell Awards Dinner, where keynote speaker and current Chief of Surgery at the VA Medical Center in Temple, TX, Dr. Clifford Buckley, Colonel (retired), USAF, MC will speak about his personal experience with Air Force ParaRescue participation in Viet Nam.

We look forward to renewing old friendships and making new ones.

Best Regards,

LtCol Timothy M. Phillips, MC, USAF Major Steven J. Hudak, MC, USA San Antonio Military Medical Center

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Matthew S. Christman, MD Naval Medical Center San Diego

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# JAMES CLAUDE KIMBROUGH, MD

Colonel, Medical Corps, United States Army -1887-1956



olonel Kimbrough was the "Father of U.S. Army ■Urology". A native of Madisonville, Tennessee, he graduated from Vanderbilt University School of Medicine in 1916 and entered the U.S. Army Medical Corps in July 1917. served a total of forty-one months in Europe during World Wars I and II. His career from 1921, was spent almost exclusively as Chief Urologist in many Army hospitals and included four tours, totaling eighteen years, at Walter Reed General Hospital where he initiated the urology residency program in 1946. His military awards include a MOS prefix of "A", Bronze

Star, Legion of Merit, Purple Heart, and a Meritorious Service Citation from General Pershing. He was immediately recalled to active duty after his statutory retirement in 1948. In 1953 an Act of Congress appointed him a Permanent Consultant in urology at Walter Reed. In addition, COL Kimbrough was a Diplomat of the American Board of Urology, a member of the American Urological Association (AUA), a Fellow of the American College of Surgeons, and a member of the American Medical Association. He served as President of the Mid-Atlantic Section of the AUA from 1955 to 1956. From 1949 to 1950 he was President of the Washington, D.C. Urologic Society. He held honorary memberships in the Western Section of the AUA, Royal Society of Medicine of London, Academic de Chirugie of Paris and Alpha Omega Alpha. Colonel Kimbrough was a 32d degree Mason and Shriner. His intense interest and enthusiasm in Urology made him an authority in the field of urologic oncology; he contributed fifty-eight papers to the urological literature. In 1953 this seminar was established in his honor. In 1957, after his death, the official name became the James C. Kimbrough Urological Seminar. On 29 June 1961, Kimbrough Army Hospital, Fort George G. Meade, was dedicated to his memory.

# JAMES C. KIMBROUGH MEMORIAL AWARDS - PREVIOUS WINNERS

In 1957, Mrs. Pauline Kimbrough established the Kimbrough Memorial Award for the best presentation by a military resident. Starting in 1972, first place awards began to be presented to the two armed forces urology residents making the best presentations in clinical urology and basic science research. The competition was expanded to include all residents in government service affiliated urology residency programs in 2007. A plaque is given to each award winner.

#### **PREVIOUS AWARD WINNERS**

EVIOUS	AWARD WINNERS	
1957	MAJ Gerald Mahaffey, USAF	Letterman Gen Hospital
1958	MAJ A.A. Borski, USA	Fitzsimons Gen Hospital
1959	LT Carter E. Carlton, USN	Baylor U. College of Medicine
1959	CPT Frank E. Ceccarelli, USA	Brooke Gen Hospital
1960	CPT Herbert Levin, USA	Walter Reed Gen Hospital
1961	CPT Richard C. Macure, USA	Brooke Gen Hospital
1962	LCDR R.M. Busch, USN	San Diego Naval Hospital
1963	CPT Richard Finder, USA	Walter Reed Gen Hospital
1964	MAJ Mauro P. Gangai, USA	Walter Reed Gen Hospital
1965	MAJ Thomas Shown, USA	Letterman Gen Hospital
1966	LCDR Robert E. Julian, USN	US Naval Hospital, PA
1967	MAJ Robert Wright, USA	Brooke Gen Hospital
1968	MAJ John C. Wurster, USA	Tripler Gen Hospital
1969	MAJ Joseph A. Bruckman, USA	Tripler Gen Hospital
1970	MAJ Davis F. Gates, USA	Tripler Gen Hospital
1971	MAJ Charles T. Swallow, USA	Brooke Gen Hospital
1972	CPT Tarver B. Bailey, USA	Walter Reed AMC
1972	MAJ Peter A. Leninger, USA	Walter Reed AMC
1973	MAJ George E. Deshon, Jr., USA	Walter Reed AMC
1973	MAJ Gerald L. Levisay, USA	Fitzsimons AMC
1974	MAJ H. David Cox, USA	Walter Reed AMC
1974	LTC Jan Hull, USA	Brooke AMC
1975	MAJ Shannon McMillen, USA	Madigan AMC
1975	LCDR Clifford J. Nemeth, USN	National Naval Med Ctr
1976	MAJ Phillip H. Beck, USA	Letterman AMC
1976	MAJ Patrick W. Kronmiller, USA	Madigan AMC
1977	MAJ William D. Belville, USA	Walter Reed AMC
1977	MAJ David W. Bentley, USA	Fitzsimons AMC
1978	MAJ Victor J. Kiesling, USA	Letterman AMC
1978	Torrence M. Wilson, USA	Fitzsimons AMC
1979	MAJ Jack R. Pence II, USAF	Wilford Hall MC
1979	MAJ Rene Sepulveda, USA	Walter Reed AMC
1980	MAJ George G. Mygatt, USA	Tripler Army AMC
1980	MAJ Jack R. Pence II, USAF	Wilford Hall MC
1981	LCDR Kathryn S. Buchta, USN	Naval Med Ctr, San Diego
1981	MAJ Gary A. Wikert, USA	Brooke AMC
1982	MAJ Louis R. Cos, USA	Univ of Rochester MC
1982	CPT August Zabbo, USAF	Cleveland Clinic Foundation
1983	CPT Robert G. Ferrigni, USAF	Wilford Hall MC
1983	CPT Ian M. Thompson Jr., USA	Brooke AMC
1984	CPT Stephen M. Dresner, USAF	WA Univ, St. Louis, MO
1984	CPT Julius L. Teague, USA	Brooke AMC
1985	LCDR Thomas F. Huisman, USN	Naval Medical Ctr, San Diego
1985	CPT Thomas A. Rozanski, USA	Madigan AMC
1986	CPT Judd W. Moul, USA	Walter Reed AMC

# JAMES C. KIMBROUGH MEMORIAL AWARDS -PREVIOUS WINNERS (cont.)

1986	CPT Thomas A. Rozanski, USA	Madigan AMC
1987	LCDR Thomas J. Stilwell, USNR	Mayo Clinic, Rochester, MN
1987	LT Harold A. Frazier II, USNR	Nat'l Naval Med. Ctr.
1988	CPT Anurag K. Das, USAFR	Duke Univ Med Ctr
1988	LT Jeffrey Twidwell, USNR	Naval Medical Ctr, San Diego
1989	MAJ Kurt L. Hansberry, USA	Brooke AMC
1989	CPT Leonard G. Renfer, USA	Madigan AMC
		Madigan AMC
1990	Cancelled (Desert Shield/Storm)	ACIC LIL HAAG
1991	CPT Wilfred S. Kearse, Jr. USAF	Wilford Hall MC
1991	MAJ Timothy K. Dixon, USA	Brooke AMC
1992	CPT Richard W. Knight, USA	Madigan AMC
1992	MAJ Donald J. Lewis, USA	Walter Reed AMC
1993	MAJ M. David Bomalaski, USAF	Wilford Hall MC
1993	MAJ Thomas M. Seay, USAF	Wilford Hall MC
1994	CPT R. Duane Cespedes, USAF	Wilford Hall MC
1994	MAJ Joseph Y. Clark, USA	Brooke AMC
1995	CPT Jay T. Bishoff, USAF	Wilford Hall MC
1995	PT Ted O. Morgan, USA	Walter Reed AMC
1996	CPT Jay T. Bishoff, USAF	Wilford Hall MC
1996	CPT Raymond S. Lance, USA	Madigan AMC
1997	MAJ John G. Anema, USAF	Wilford Hall MC
	•	
1997	LTC Rhonda Cornum, USA	Brooke AMC
1998	MAJ John G. Anema, USAF	SAUSHEC*
1998	MAJ George B. Stackhouse, USA	Walter Reed AMC
1999	LT Melody A. Denson, USN	University of Iowa
1999	CPT Kyle J. Weld, USAF	University of Tennessee
2000	LCDR Prodromos G. Borboroglu,USN	Naval Medical Ctr, San Diego
2000	CPT Michael L. Gallentine, USAF	SAUSHEC*
2001	MAJ Kevin J. Gancarczyk, USA	Walter Reed AMC
2001	CPT Barak Perahia, USAF	SAUSHEC*
2002	CPT Ann S. Fenton, USAF	SAUSHEC*
2002	CPT Kenneth H. Ferguson, USAF	SAUSHEC*
2004	CPT Eric J. Hick, USAF	SAUSHEC*
2004	MAJ Stacey G. Koff, USA	Walter Reed AMC
2005	MAJ Mark Noller, USA	SAUSHEC*
2005	CPT Thomas Novak	Walter Reed AMC
2006	MAJ Inger Rosner, USA	Walter Reed AMC
2006	LT R. Chanc Walters, USN	Naval Medical Ctr, San Diego
2007	LT Alison M. Lake, USN	University of Michigan
2007	LT R. Chanc Walters, USN	Naval Medical Ctr, San Diego
2008	LT Alison M. Lake, USN	University of Michigan
2008	CPT L. Andrew Evans	SAUSHEC*
		Walter Reed AMC
2009	CPT Chad DeRosa, MC, USA	
2009	CPT Forrest C. Jellison, MC,USAF	Loma Linda Medical Center
2012	CPT Timothy Tausch, MC USA	Madigan AMC, WA
2012	MAJ Patrick McDonough, MC, USA	Madigan AMC, WA
2013	CPT Nicholas J. Kuntz, MC, USA	Duke University
2013	CPT Mark R. Anderson, MC, USA	Duke University
2014	CPT Ryan W. Speir, MC, USA	Madigan Army Medical Center
2014	CPT Nicholas J. Kuntz, MC, USA	Duke University
2015	CPT Raffaella DeRosa, MC, USA	Tripler Army Medical Center
2015	CPT Nicholas J. Kuntz, MC, USA	Duke University
	• •	•

<sup>\*</sup>San Antonio Uniformed Services Health Education Consortium

# PRINCE D. BEACH, MD

Colonel, Medical Corps, United States Army -1918-1992



olonel Beach was a native of New Bedford, Massachusetts, a graduate ■of Colby College and Jefferson Medical College, and was commissioned in the US AMEDD in 1945. Over the next several vears he served as a battalion surgeon and medical officer with varied and multiple commands of dispensaries and station hospitals, primarily in Europe. During the Korean War he received the Bronze Star while commanding officer and division surgeon of the 24th Medical Battalion. After completion of his urology residency in 1955 at Brooke Army Medical Center, he was the Assistant Chief of Urology at Fort Carson and Brooke, and Chief of Urology, 2nd General

Hospital, Landstuhl, Germany. He returned to Brooke General Hospital in 1963 and was Chief of Urology from 1965 until his retirement in 1968, after 23 years of active service. Subsequently, he became an Associate Professor in the Department of Urology at Baylor College of Medicine, Chief of Urology at the VA Hospital in Houston, Texas, and Co-chairman of the VA Cooperative Urological Research Group. He was Executive Secretary of the Society of Government Service Urologists (SGSU) from its inception until his death in 1992. He was known for his great sense of humor, administrative expertise, wise counsel and sound clinical acumen.

# PRINCE D. BEACH AWARD PREVIOUS WINNERS

Established in 1992 for the best paper presented by a Society Member Staff Physician, as judged by Chief Residents attending the Seminar.

#### **PREVIOUS AWARD WINNERS**

1993	MAJ Samuel Peretsman, USAF, MC	Wilford Hall Medical Center
1994	MAJ J. Brantley Thrasher, MC, USA	Madigan Army Medical Center
1995	MAJ J. Brantley Thrasher, MC, USA	Madigan Army Medical Center
1996	MAJ Allen F. Morey, MC, USA	UCSF San Francisco Gen. Hospital
1997	MAJ Ronald S. Sutherland, MC, USA	Tripler Army Medical Center
1998	LTC Burkhardt H. Zorn, MC, USA	Walter Reed Army Medical Ctr.
1999	COL Rhonda Cornum, MC, USA	Eisenhower Army Medical Center
2000	LCDR Stephen V. Jackman, MC, USN	Naval Medical Ctr. Portsmouth
2001	COL Thomas A. Rozanski, MC, USA	Brooke Army Medical Center
2002	MAJ(P) Douglas W. Soderdahl, MC,USA Eis	senhower Army Medical Center
2004	LCDR Brian Auge, MC, USN	Naval Medical Center San Diego
2005	COL Edward Mueller, MC, USA (Ret.)	San Antonio, TX
2006	LCDR Emily Cole, MC, USNR	Naval Medical Center San Diego
2007	MAJ R. Clay McDonough, III, USAF, MC	University of Iowa Hosp.& Clinics
2008	James A. Brown, M.D.	Medical College of Georgia
2009	LTC Andrew Peterson, MC, USA	Madigan Army Medical Center
2010	LCDR Douglas W. Storm, MC, USN	Naval Medical Center San Diego
2011	MAJ Steven Hudak, MC, USA	San Antonio Military Med. Ctr.
2012	LCDR Joe Miller, MC, USN	Univ. of California, San Francisco
2013	LTC Timothy Brand MC, USA	Madigan Army Medical Center
2014	LCDR Douglas W. Storm, MC, USN	University of Iowa Hosp.& Clinics
2015	Col (Ret) Drew Peterson, MC, USA	Duke University

### H. GODWIN STEVENSON

SGSU Administrator - 1920-1992



. Godwin Stevenson, a native of Philadelphia, graduated from Cornell University with a B.S. in zoology. He was a naval aviator and flight instructor during World War II. In 1946 he joined Eaton Laboratories as their first salesman and was in charge of government sales from 1952 until his retirement in 1982. He was a naturalist throughout his life, an expert in falconry, an avid birdwatcher, and published authority on moths. Known affectionately as "Tibbie," he was a trusted friend, confidant, and supporter of all Armed Forces and VA urologists. His numerous contributions to government service urology remain his legacy, and include: administrator of the SGSU from its inception in 1972 until his death in 1992, organization and

publication of the "Proceedings of the Kimbrough Seminar," solicitation of multiple corporate sponsors for the annual James C. Kimbrough Urological Seminar, resident grants to professional meetings, SGSU Membership Directory, and hotel conference agreements for the yearly Kimbrough meeting.

# H.G. STEVENSON AWARD PREVIOUS WINNERS

In 1992 the Society established this award, which is presented annually for outstanding support and dedicated service to the Society. The recipient of this award can be a Corporate Member, physician, or other individual as determined by the Board of Directors.

#### **PREVIOUS AWARD WINNERS**

1992	COL Evan Lewis, MC, USA (Ret)
1994	Preston N. Littrell
1995	COL John N Wettlaufer, MC, USA (Ret)
1996	COL Leonard Maldonado, MC, USA (Ret)
1997	F. Kash Mostofi, M.D.
1998	Lester Persky, M.D.
1999	Charles A. Hulse, M.D.
2000	COL Donald E. Novicki, USAF, MC (Ret)
2001	Harry Tarr
2002	COL Martin L. Dresner, MC, USA (Ret)
2004	COL Robert M. Dobbs, MC, USA (Ret)
2005	COL Ian M. Thompson, MC, USA (Ret)
2006	Kathryn S. Littrell
2007	COL Howard E. Fauver, MC, USA (Ret)
2008	COL David G. McLeod, MC, USA (Ret)
2009	COL David McLeod, MC, USA (Ret)
2010	COL Thomas A. Rozanski, MC, USA (Ret)
2011	Isabel Sesterhenn, MD
2012	John Weigel, MD
2013	BGEN James T. Turlington, MC, USAF (Ret)
2014	John M. Barry, MD
2015	DeSantis Management Group

## **CHRISTINE MANTHOS**

Major, Medical Corps, United States Army - 1961-1999



ajor Manthos, a native of Leesburg, Virginia, commissioned in the USAR in 1985. was a graduate with distinction of University of Virginia and the Uniformed Services University of the Health Sciences from which she received the Army Surgeon General Award. She did her surgical internship at Fitzsimons AMC followed by a one year assignment in Korea as Troop Medical Clinic Commander. She returned to Fitzsimons to complete her Urology residency in 1996 as the last graduating urology resident prior to the closure of Fitzsimons. Among her accomplishments throughout her life were fluency in Russian, participation in an early Hanta

virus study, experience as a country music disc jockey, selection by her peers in 1996 as Outstanding Teaching Resident and below zone promotion to Major. An outstanding physician, she was known for her genuine compassion, excellent teaching abilities and superb surgical skills. Chris was lovingly devoted to her children, family and many friends. Her ever-present infectious smile touched all who knew her. The annual resident luncheon will be held in memory of Christina Manthos, a member of the society who died of breast cancer. We hope her memory and love for residents will live on at the luncheon.

#### **CLARE SCANLON**

1941-2005



lare Scanlon was just as much a member of the Army as was her husband, retired Island, New York, Clare graduated from Marymount College in Arlington, Virginia. While raising a family and moving from post to post, Clare worked tirelessly to enrich the lives of those around her. She received the Military Wife of the Year award at Fort Dix, NJ in 1971, and in 1974 was a recipient of the Molly Pitcher award for distinguished service as an officer's wife in the community at Ft. Sill, OK. While at West Point, Clare instructed cadets on finer points of decorum and protocol, launching many young men and women into successful Army careers.

fter Wally's career took him to Fort Sam Houston, she served as the medical editor for Brooke Army Medical Center, shepherded many manuscripts into prestigious journals and textbooks of international renown, and began a decade of service to the SGSU. Even into the last year of her life, Clare dedicated countless hours to planning the Kimbrough Urological Seminar, editing and assembling the program book.

#### **CLARE SCANLON AWARD - PREVIOUS WINNERS**

#### **CLARE SCANLON AWARD**

In 2006, to express our deep gratitude for her devoted service, the Society established the Clare Scanlon Award, to be "presented annually for outstanding administrative support and service to the Society, specifically in regards to the annual Kimbrough Seminar, as determined by the Course Director".

#### **PREVIOUS AWARD WINNERS**

2006 Teresa Clark & Sharon Mason

2007 Janie N. Garcia

2008 Patricia A. Harrison

2009 Toni Dominci

2011 Verna Munroe

NUMBER	YEAR	
1	1953	Walter Reed General Hospital COL Jack W. Schwartz, MC, USA
2	1954	Walter Reed General Hospital COL Jack W. Schwartz, MC, USA
3	1955	Brooke General Hospital COL Claude C. Dodson, MC, USA
4	1956	Walter Reed General Hospital LTC Kryder E. Van Buskirk, MC, USA
5	1957	Walter Reed General Hospital COL John F. Patton, MC, USA
6	1958	Brooke General Hospital COL Louis K. Mantell, MC, USA
7	1959	Brooke General Hospital COL Louis K. Mantell, MC, USA
8	1960	Brooke General Hospital LTC Clarence B. Hewitt, MC, USA
9	1961	Brooke General Hospital COL Louis K. Mantell, MC, USA
10	1962	Letterman General Hospital COL Kryder E. Van Buskirk, MC, USA
11	1963	Walter Reed General Hospital
12	1964	COL Clarence B. Hewitt, MC, USA Brooke General Hospital
13	1965	COL Prince D. Beach, MC, USA Letterman General Hospital LTC Charles A. Moore, MC, USA
14	1966	Walter Reed General Hospital COL Kryder E. Van Buskirk, MC, USA
15	1967	Brooke General Hospital COL Prince D. Beach, MC, USA
16	1968	Walter Reed General Hospital COL Kryder E. Van Buskirk, MC, USA
17	1969	Letterman General Hospital COL Leonard Maldonado, MC, USA

NUMBER 18	<b>YEAR</b> 1970	Brooke General Hospital LTC Robert M. Dobbs, MC, USA
19	1971	Letterman General Hospital LTC Ray E. Stutzman, MC, USA
20	1972	Fitzsimons General Hospital
21	1973	COL Evan L. Lewis, MC, USA Walter Reed Army Medical Center COL Anthony A. Borski, MC, USA CPT Mitchell Edson, MC, USN
22	1974	Brooke Army Medical Center COL Mauro P. Gangai, MC, USA
23	1975	Madigan Army Medical Center COL John N. Wettlaufer, MC, USA
24	1976	Naval Hospital, NRMC, San Diego, CA CAPT C.R. Sargent, MC, USN
25	1977	Fitzsimons Army Medical Center COL Robert M. Dobbs, MC, USA
26	1978	Wilford Hall USAF Medical Center COL Thomas P. Ball, MC, USAF COL Carl H. Weber, MC, USAF
27	1979	Walter Reed Army Medical Center COL Ray E. Stutzman, MC, USA
28	1980	Naval Regional Med Center, San Diego CAPT Michael R. McCarthy, MC, USN CDR John P. Sands, MC, USN
29	1981	Fitzsimons Army Medical Center COL Howard E. Fauver, MC, USA
30	1982	Wilford Hall USAF Medical Center COL Donald E. Novicki, USAF, MC LT COL Richard A. Airhart, USAF, MCP
31	1983	Letterman Army Medical Center COL Robert E. Agee, MC, USA
32	1984	Naval Hospital, Oakland, CA CDR George J. Gavrell, MC, USN

NUMBER	YEAR	
33	1985	Madigan Army Medical Center COL William D. Belville, MC, USA
34	1986	Wilford Hall USAF Medical Center COL Alvin L. Sago, USAF, MC LT COL John D. Maldazys, MC, USAF
35	1987	Walter Reed Army Medical Center/USUHS COL David G. McLeod, MC, USA LTC Steven J. Skoog, MC, USA
36	1988	Naval Hospital Portsmouth CAPT Gordon MacDonald, MC, USA
37	1989	Brooke Army Medical Center COL Francisco R. Rodriguez, MC, USA
38	1990	Fitzsimons Army Medical Center COL Michael J. Raife, MC, USA
39	1991	National Naval Medical Center-Bethesda CAPT Kevin J. O'Connell, MC, USN
40	1992	Madigan Army Medical Center COL John N. Wettlaufer, MC, USA
41	1993	Naval Medical Center San Diego CAPT John P. Sands, MC, USN
42	1994	Naval Medical Center Portsmouth CAPT James R. Auman, MC, USN
43	1995	Walter Reed Army Medical Center/USUHS COL David G. McLeod, MC, USA LTC Pierce B. Irby, MC, USA
44	1996	Wilford Hall USAF Medical Center MAJ Steven C. Lynch, MC, USAF MAJ Edmund S. Sabanegh, MC, USAF
45	1997	Tripler Army Medical Center COL George E. Deshon, MC, USA
46	1998	National Naval Medical Center-Bethesda CAPT Paul J. Christenson, MC, USN CDR Hal A. Frazier, MC, USN
47	1999	Brooke Army Medical Center LTC Thomas A. Rozanski, MC, USA LTC John P. Foley, MC, USA <b>14</b>

NUMBER	YEAR	
48	2000	Naval Medical Center San Diego CAPT James L. Roberts, MC, USN LCDR Christopher J. Kane, MC, USN
49	2001	Madigan Army Medical Center LTC(P) Raymond A. Costabile, MC, USA
50	2002	Walter Reed Army Medical Center COL Dennis S. Peppas, MC, USA
51	2004	Wilford Hall USAF Medical Center MAJ Edith Canby-Hagino, MC, USAF LT COL Steven C. Lynch, MC, USAF
52	2005	Tripler Army Medical Center COL Ronald S. Sutherland, MC, USA
53	2006	Naval Medical Center Portsmouth CAPT Leo Kusuda, MC, USN Eastern Virginia Medical School Gerald H. Jordan, MD
54	2007	Brooke Army Medical Center LTC Douglas W. Soderdahl, MC, USA
55	2008	COL Allen F. Morey, MC, USA Naval Medical Center San Diego CDR Brian K. Auge, MC, USN LCDR Donald S. Crain, MC, USN
56	2009	Walter Reed Army Medical Center & National Naval Medical Center-Bethesda COL James R. Jezior, MC, USA COL Robert C. Dean, MC, USA
57	2010	Wilford Hall Medical Center LT COL Kyle J. Weld, MC, USAF
58	2011	Madigan Healthcare System MAJ Timothy C. Brand, MC, USA
59	2012	Naval Medical Center Portsmouth CAPT Paul D. McAdams, MD, FACS
60	2013	Tripler Medical Center, Honolulu COL (Ret) USA, Richard S. Stack, MD MAJ Joseph Sterbis, MC, USA CDR Tammy L. Bloom, MC, USN

NUMBER	YEAR	
61	2014	Naval Medical Center San Diego
		CDR Sean P. Stroup, MC, USN
		CDR Jamey Sarvis, MC, USN
62	2015	Naval Medical Center San Diego
		LTC Timothy C. Brand, MC, USA
		LTC Jack R. Walter, MC, USA
63	2016	San Antonio Military Medical Center
		MAJ Steven J. Hudak, MC, USA
		LT COL Timothy M. Phillips, MC, USAF

## **GENERAL INFORMATION**

#### Registration:

Registration is required in order to obtain Continuing Medical Education credits. Attendees will be given badges at registration. It is required that you wear your badges to gain entry into the scientific sessions, exhibit hall, social events, breakfasts, and breaks. Should you wish to bring your spouse to any of these events, you must register he/she for a badge.

#### The evening optional social events include the:

- Wednesday Evening President's Welcoming Reception \$45
- Saturday Evening Kathy & Preston Littrell Awards Dinner \$45 If you have not purchased these tickets, you may do so at the registration desk. (Tickets will be collected at the door).

#### Overview/Highlights:

Topics featured at the Kimbrough Annual Seminar will feature state of the art lectures in various urologic topics - including: Practice Management & Health Policy, Oncology: Bladder, Kidney & Testis, Pediatric Urology, Trauma & Reconstruction, Urologic Oncology, General Urology, Male Incontinence, Female Incontinence & Voiding Dysfunction, and a Course Summary. In addition, the program will include the traditional Resident Research Competition, Research Papers, Poster Session and Mock Oral Boards - for those preparing for the ABU certifying examination. This year, the Manthos Resident/Young Urologist luncheon Program will feature "Achieving Professional Excellence in Military Urology While Assigned to Smaller Military Treatment Facilities."

**Special Assistance/Dietary Needs:** The SGSU complies with the Americans with Disabilities Act §12112(a). If any participant is in need of special assistance or has any dietary restrictions, please see the registration desk.

#### **Attention Presenters:**

Go to slide preview area to make changes/update slides. Updates must be made an hour in advance of your presentation.

#### **Slide Preview Hours:**

WED: 2:00 PM - 6:00 PM THURS - SAT: 7:00 AM - 5:00 PM

# **CONTINUING MEDICAL EDUCATION**

# **Acknowledgement of Commercial Support**

**Boston Scientific** 

#### **Accreditation Statement**

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the Institute for the Advancement of Human Behavior (IAHB) and the Society of Government Service Urologists (SGSU). IAHB is accredited by the ACCME to provide continuing medical education for physicians.

#### **Credit Designation Statement**

IAHB designates this live activity for a maximum of 24.5 AMA PRA Category 1 Credits<sup>TM</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

# Objectives - After attending this program you should be able to:

- 1. Discuss the role of sacral neuromodulation for patients with refractory overactive bladder.
- 2. Appraise the epidemiology and management of genitourinary trauma to improve outcomes of future trauma patients and morbidity rates.
- 3. Discuss prostate biomarkers in patients with high risk of prostate cancer.

# **CONTINUING MEDICAL EDUCATION**

#### **Disclosure of Conflict of Interest**

The following table of disclosure information is provided to learners and contains the relevant financial relationships that each individual in a position to control the content of CME disclosed to SGSU. All of these relationships were treated as a conflict of interest, and have been resolved. (C7 SCS 6.1--6.2, 6.5). All individuals in a position to control the content of CE are listed in the program book. If an individual's name is in the program book but is not on the following list, that individual had no relevant financial relationships to disclose.

Last Name	First Name	Organization	Relationship	
Anderson	Paul	Boston Scientific	Other Financial or Material Support	
Anderson	Paul	Astellas	Other Financial or Material Support	
Hernandez	Javier	UTHSCSA	Employee	
Hernandez	Javier	DOD	Other Financial or Material Support	
Jones	Leroy	Boston Scientific	Consultant	
Jones	Leroy	Coloplast	Consultant	
Jones	Leroy	Endo Pharmaceutical	Speakers Bureau	
Kraus	Stephen	Astellas	Consultant	
Kraus	Stephen	Allergan	Scientific/Medical Advisory Board	
Kidus	Stephen	Alleigali	Member	
Kraus	Stephen	Laborie Medical	Other Financial or Material Support	
Kraus	Stephen	Medtronic	Consultant	
Morey Allen American Medical			Other Financial or Material Support	
,	7	Systems		
Morey	Allen	Coloplast Corp.	Other Financial or Material Support	
Stroup	Sean	Neotract, Inc	Consultant	
Stroup	Sean	Intuitive Surgical	Consultant	
Tajkarimi	Kambiz	Reflexonic	Founder	
Tajkarimi	Kambiz	Life technologies	Scientific/Medical Advisory Board Member	
Thompson	lan	Exosome diagnostics	Consultant	
Thompson	lan	Urology Job Search, LLC	Founder	
Thompson	lan	Alternate Universe, LLC	Stock Shareholder	

# **CONTINUING MEDICAL EDUCATION**

# Print Your CME Certificate After The Meeting Instructions:

Go to SGSU.CmeCertificateOnline.com

Click on the "SGSU Kimbrough Urological Seminar" link and follow instructions

Questions? Email Certificate@AmedcoEmail.com

Thank you!

# **PROGRAM-AT-A-GLANCE**

# Wednesday, January 13

<u>TIME</u>	<u>EVENT</u>	<u>ROOM</u>
2:00 PM - 6:00 PM	Registration	Navarro Ballroom Foyer
2:00 PM - 6:00 PM	Slide Preview Station	Navarro Ballroom Foyer
2:00 PM - 5:00 PM	Board of Director's Meeting	Villa Room
6:30 PM - 8:30 PM	Welcome Reception	Olivares, Goraz Rooms &
		River Foyer

# Thursday, January 14

<u>TIME</u>	<u>EVENT</u>	ROOM
7:00 AM - 2:00 PM	Exhibit Hall open	Navarro B Ballroom
7:00 AM - 8:15 AM	Networking Breakfast	Exhibit Hall
7:00 AM - 5:00 PM	Registration	Navarro Ballroom Foyer
7:00 AM - 5:00 PM	Slide Preview Station	Navarro Ballroom Foyer
8:00 AM - 10:00 AM	Spouse Hospitality	Camino Real Room
8:15 AM - 8:30 AM	Welcome & Presentations	Navarro A Ballroom
8:30 AM - 8:45 AM	AUA Keynote Address	Navarro A Ballroom
8:45 AM - 10:45 AM	Session I: Residents Competition	Navarro A Ballroom
10:45 AM - 11:30 AM	Refreshment Break	Exhibit Hall
11:30 AM - 12:30 PM	Astellas/Medivation Symposium (non CME)	Navarro A Ballroom
12:30 PM - 1:35 PM	Manthos Resident & Young Urologist Luncheon	Camino Real Ballroom
12:30 PM - 1:35 PM	Lunch Break	Exhibit Hall
1:40 PM - 2:30 PM	Session II: Residents Competition	Navarro A Ballroom
2:30 PM - 3:15 PM	Session III: Clinical Research	Navarro A Ballroom
3:15 PM - 4:45 PM	Session IV: Practice Management/ Health Policy	Navarro A Ballroom
5:30 PM - 6:00 PM 6:00 PM - 7:30 PM	GU Bowl Official Tailgate Party GU Bowl	Navarro Ballroom Foyer Navarro Ballroom

# Friday, January 15

• • • • • • • • • • • • • • • • • • • •		
<u>TIME</u>	<u>EVENT</u>	<u>ROOM</u>
7:00 AM - 2:00 PM	Exhibit Hall open	Navarro B Ballroom
7:00 AM - 8:15 AM	Networking Breakfast	Exhibit Hall
7:00 AM - 5:00 PM	Registration	Navarro Ballroom Foyer
7:00 AM - 5:00 PM	Slide Preview Station	Navarro Ballroom Foyer
8:00 AM - 10:00 AM	Spouse Hospitality	Camino Real Room
8:15 AM - 10:00 AM	Session V: Oncology: Bladder	Navarro A Ballroom
10:00 AM - 11:00 AM	Refreshment Break	Exhibit Hall
11:00 AM - 11:45 AM	Session VI: Oncology: Kidney &	Navarro A Ballroom
	Testis	
11:45 AM - 12:45 PM	Session VII: Pediatrics	Navarro A Ballroom

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# **PROGRAM-AT-A-GLANCE**

### Friday, January 15 (continued)

<u>TIME</u>	<u>EVENT</u>	<u>ROOM</u>
12:45 PM - 1:45 PM	Genomic Health Lunch Symposiun (non CME)	n Navarro A Ballroom
2:00 PM - 4:00 PM	Session VIII:Trauma & Reconstruction	Navarro A Ballroom
4:00 PM - 5:30 PM	Session IX: Podium & Poster Presentations & Reception	Navarro Foyer & Ballroom

# Saturday, January 16

<u>TIME</u>	<u>EVENT</u>	<u>ROOM</u>
7:00 AM - 2:00 PM	Exhibit Hall open	Navarro B Ballroom
7:00 AM - 8:15 AM	Networking Breakfast	Exhibit Hall
7:00 AM - 5:00 PM	Registration	Navarro Ballroom Foyer
7:00 AM - 5:00 PM	Slide Preview Station	Navarro Ballroom Foyer
8:00 AM - 10:00 AM	Spouse Hospitality	Camino Real Room
8:15 AM - 9:15 AM	Session X: Urologic Oncology	Navarro A Ballroom
9:15 AM - 10:00 AM	Session XI: Clinical Research	Navarro A Ballroom
10:00 AM - 10:45 AM	Refreshment Break	Exhibit Hall
10:45 AM - 11:45 AM	Janssen Symposium (non CME)	Navarro A Ballroom
11:45 AM - 12:45 PM	Session XII: General Urology	Navarro A Ballroom
12:45 PM - 2:15 PM	SGSU Business Lunch	Navarro A Ballroom
2:15 PM - 3:15 PM	Session XIII: Male Incontinence	Navarro A Ballroom
3:15 PM - 4:30 PM	Session XIV: Female Incontinence	Navarro A Ballroom
	& Voiding Dysfunction	
6:30 PM - 9:30 PM	Kathy and Preston Littrell Awards	Hidalgo Ballroom
	Reception / Dinner	

# Sunday, January 17

<u>TIME</u>	<u>EVENT</u>	<u>ROOM</u>
7:00 AM - 8:00 AM	Networking Breakfast	Navarro A Ballroom
7:00 AM - 12:00 PM	Registration	Navarro Ballroom Foyer
8:00 AM - 9:00 AM	Abstract Presentation & Course Summary	Navarro A Ballroom
9:00 AM - 12:00 PM	,	Navarro B Ballroom

Please sign up for Mock Oral Boards at Registration Desk.

# **INVITED SPEAKERS**

Paul Anderson, MD

Dudley Group of Hospitals, Dudley, UK UT Southwestern

LTC Timothy C. Brand, MC, USA

Tripler Army Medical Center

CDR Chong (Jay) Choe, MC, USN

Naval Medical Center San Diego

Col. Paul A. Friedrichs, MC, USAF

Tripler Army Medical Center

John P. Gearhart, MD

John Hopkins Hospital

Javier Hernandez, MD

University of Texas Health Science Ctr.

MAJ Forrest C. Jellison, MC, USAF

**Brook Army Medical Center** 

LeRoy A. Jones, MD

San Antonio, TX

Dharam Kaushik, MD

University of Texas Health Science Ctr.

Jackson Kirkman-Brown, PhD

University of Birmingham

Stephen R. Kraus, MD, FACS

University of Texas Health Science Ctr.

Jeffrey A. Leslie, MD, FAAP

Pediatrix Med. Grp., San Antonio, TX

Michael Liss, MD

University of Texas Health Science Ctr

Devalingam Mahalingam, MD

University of Texas Health Science Ctr

Allen F. Morey, MD

Kenneth G. Nepple, MD

Univ. of Iowa Carver College of Med.

Jean A. Orman, ScD, MPH

US Army Institute of Surgical Research

Andrew C. (Drew) Peterson, MD, FACS

**Duke University** 

Michael Porter, MD

University of Washington

Juan C. Prieto, MD

San Antonio Pediatric Surgery Assoc.

Ron Rodriguez, MD, PhD

University of Texas Health Science Ctr.

MAJ David M. Stanley, MC, USA

Fort Gordon, GA

Robert S. Svatek, MD

University of Texas Health Science Ctr.

Ian Thompson Jr, MD

University of Texas Health Science Ctr.

Ian Thompson, III, MD

University of Texas Health Science Ctr.

Timothy Tseng, MD

University of Texas Health Science Ctr.

LTC Jack R. Walter, MC, USA

Tripler Army Medical Center

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# **EXHIBIT HALL ACTIVITIES**

# Visit the Exhibit Hall For The Education!

- See first hand the latest in urology technology & services
- Enjoy hearty networking breakfasts
- Re-Energize with lively refreshment breaks
- Visit the exhibitors to win prizes!

#### The Exhibit Hall is located in the Navarro B Ballroom

#### **Schedule of Activities in the Exhibit Hall**

#### Thursday, Jan. 14 Schedule:

7:00am - 2:00pm: Hours Open

7:00am - 8:15am: Networking Breakfast 10:45am - 11:30am: Refreshment Break

12:00pm - 1:35pm: Lunch Break

#### Friday, Jan. 15 Schedule:

7:00am - 2:00pm: Hours Open

7:00am - 8:15am: Networking Breakfast 10:00am - 11:00am: Refreshment Break

#### Saturday, Jan. 16 Schedule:

7:00am - 2:00pm: Hours Open

7:00am - 8:15am: Networking Breakfast 10:00am - 10:45am: Refreshment Break

Visit with the Exhibitors during the Breakfasts, Refreshment Breaks
Use your "Hello Card" to win prizes!

# **COMMERCIAL EXHIBITORS**

We thank our commercial exhibitors for their support of the Kimbrough Annual Meeting. Please be sure to visit them in the Navarro Ballroom during the meeting.



Astellas Pharma US Lumenis

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Boston Scientific Corp. Medtronic

Cogentix MiMedx

Coloplast Mission Pharmacal

Cook NeoTract, Inc.

Dendreon Corp. Opko

Dornier Medtech America, Inc. PSS Urology Endo Reflexonic

Genomic Health Richard Wolf Med. Instr. Corp.
Hitachi Aloka Siemens Medical Solutions USA

Janssen Biotech Signostics

**Karl Storz Endoscopy-America** 

Let's thank our Exhibitors by visiting them during the scheduled exhibit hall activities.

# THANK YOU SUPPORTERS

The SGSU thanks the following companies for their outstanding support!

# **Commercial Supporters**

**Double Diamond Boston Scientific Corp.** 

# **Non-CME: Promotional Partners**

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## **Emerald**

GenomeDX
Society of Genitourinary Reconstructive Surgeons
American Urological Association
MiMedx

# **GU BOWL**

# Experience a Great Tradition! The SGSU Annual GU Bowl



# Thursday evening

GU Bowl Official Tailgate Party 5:30 pm, Navarro Ballroom Foyer

GU Bowl 6:00 pm, Navarro A Ballroom







# **BOSTON SCIENTIFIC CORP.**

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### **WEDNESDAY, JANUARY 13**

# Outline of Scientific Program 63rd Kimbrough

Annual Seminar \* Westin Riverwalk Hotel, San Antonio

<u>TIME</u>	<u>EVENT</u>	<u>ROOM</u>
2:00 PM - 6:00 PM	Registration	Navarro Ballroom Foyer
2:00 PM - 6:00 PM	Slide Preview Station	Navarro Ballroom Foyer
2:00 PM - 5:00 PM	SGSU Board of Directors Meeting	Villa Room
6:30 PM - 8:30 PM	Welcome Reception	Olivares, Goraz Rooms

6:30pm-8:30pm - Olivares, Goraz Rooms & River Foyer



Enjoy the start of the SGSU meeting with a variety of savory food stations while visiting with colleagues.

Be sure to bring your Event & Drink tickets!



### **THURSDAY, JANUARY 14**

# Outline of Scientific Program 63rd Kimbrough

Annual Seminar \* Westin Riverwalk Hotel, San Antonio

<u>TIME</u>	<u>EVENT</u>	ROOM	
7:00 AM - 2:00 PM	Exhibit Hall open	Navarro B Ballroom	
7:00 AM - 8:15 AM	7:00 AM - 8:15 AM Networking Breakfast		
7:00 AM - 5:00 PM	Registration	Navarro Ballroom Foyer	
7:00 AM - 5:00 PM	Slide Preview Station	Navarro Ballroom Foyer	
8:00 AM - 10:00 AM	Spouse Hospitality	Camino Real Room	
8:15 AM - 8:30 AM	Welcome & Presentations	Navarro A Ballroom	
8:30 AM - 8:45 AM	AUA Keynote Speaker	Navarro A Ballroom	
8:45 AM - 10:45 AM	Session I: Residents Competition	Navarro A Ballroom	
10:45 AM - 11:30 AM	Refreshment Break	Exhibit Hall	
11:30 AM - 12:30 PM	Astellas/Medivation Symposium (non CME)	Navarro A Ballroom	
12:30 PM - 1:35 PM	Manthos Resident & Young Urologist Luncheon	Camino Real Room	
12:30 PM - 1:35 PM	Lunch Break	Exhibit Hall	
1:40 PM - 2:30 PM	Session II: Residents Competition	Navarro A Ballroom	
2:30 PM - 3:15 PM	Session III: Clinical Research	Navarro A Ballroom	
3:15 PM - 4:45 PM	3:15 PM - 4:45 PM Session IV: Practice Management/ N Health Policy		
5:30 PM - 6:00 PM	GU Bowl Official Tailgate Party	Navarro Ballroom Foyer	
6:00 PM - 7:30 PM	GU Bowl	Navarro A Ballroom	

## 7:00 AM - 8:15 AM Coffee & Breakfast in the Exhibit Hall!

Enjoy a hearty breakfast, hot coffee and mingle with colleagues and industry reps!

Complete your "Hello Card" to win prizes!



#### **GENERAL PROGRAM**

#### **OPENING CEREMONIES**

8:15 AM - 8:45 AM - Navarro A Ballroom

8:15AM - 8:20AM Welcome & Announcements

MAJ Steven J. Hudak, MC, USA LT COL Timothy Phillips, MC, USAF

8:20AM - 8:25AM National Anthem

8:25AM - 8:30AM Welcome from the President

Thomas A. Rozanski, MD

8:30AM - 8:45AM AUA Keynote Address

William Bohnert, MD, Immediate AUA Past

President



#### SESSION I - RESIDENTS COMPETITION

8:45 AM - 10:45 AM - Navarro A Ballroom

Papers are six minutes, following a two/three minute discussion

Moderators:

MAJ Marc R. Walker, MC, USA & MAJ Richard N. Greene, Jr., MC, USA Judges: John M. Barry, MD, William Bohnert, MD & Martin Dresner, MD

#### 1 8:45AM CPT Jonathan T Wingate, MC, USA

Treatment Trends For Clinical Stage I Testicular Seminoma In A Large, Equal-access Medical System: An Examination Of Adjuvant Treatments From 2001-2011 In The Department Of Defense Tumor Registry.

#### 2. 8:53AM LT Michael T. Marshall, MC, USA

Robot-assisted Laparoscopic Retroperitoneal Lymph Node Dissection For Non-seminomatous Testicular Tumors In The Primary Setting: A Multi-institutional Analysis.

#### 3 9:01AM CPT Daniel J. Kim, MC, USA

Patterns in Treatment Decision-Making and Longitudinal Regret for Low Risk Prostate Cancer Patients Managed on Active Surveillance.

#### 4 9:09AM CPT Jason Sedarsky, MC, USA

Racial Differences of ERG Frequencies in Prostate Cancer.

#### 5 9:17AM LT Travis C. Allemang MC, USN

Prostate Cancer Gene Expression Signatures Associated With Seminal Vesicle Invasion And Biochemical Recurrence After Radical Prostatectomy.

9:25AM Discussion (12 minutes)

#### 6 9:37AM CPT Carolyn A. Salter, MC, USA

Developing A Xiaflex Program: The Walter Reed Experience And Complications.

#### 7 9:45AM CAPT Jeremy Kelley, MC, USAF

Relationship Between Chronic Testicular Pain And Mental Health Diagnoses.

#### 8 9:53AM LT Paul D. McClain, MC, USN

Testosterone Replacement Among Hypogonadal Men.

#### 9 10:01AM CPT Seth P. Olcese, MC, USA

Comparing The Incidence And Clinical Significance Of Arterial Injury During Varicocele Repair Using Loupes Versus A Surgical Microscope.

10:09AM Discussion (11 minutes)

#### 10 10:20AM MAJ Stephen Overholser, MC, USA

Medicaid Patient Access to Urologic Care in the Era of the Affordable Care Act.

#### 11 10:28AM LCDR Randy K Sulaver, MC, USNR

Resident Impact On Patient & Surgeon Satisfaction And Outcomes: Evidence For Health System Support For Urology Education.

10:36AM Discussion (9 minutes)

10:45am - 11:30am

# Refreshment Break in Exhibit Hall

Complete your Hello Card for great prizes!!!

Break Supported by Boston Scientific Corp.

#### SPECIAL PROGRAM

11:30 AM - 12:30 PM - Navarro A Ballroom

"Continuing Care for Your Patients with Metastatic CRPC."

Daniel Saltzstein, MD

Urology San Antonio Research, San Antonio, TX

Supported by Astellas/Medivation - Non CME Symposium



#### 12:30pm - 1:35pm - Camino Real Room

Manthos Resident & Young Urologist Lunch Program

#### Featuring:

LCDR Will Patino, MC, USN; MAJ Necia M. Pope, MC, USAF; LTC Andrew L. Evans, MC, USA

"How to Achieve Professional Excellence in Military Urology While Assigned to Smaller Military Treatment Facilities."



## ~ For all Others ~

12:30pm - 1:35pm Lunch provided by SGSU in the Exhibit Hall

#### **SESSION II - RESIDENTS COMPETITION**

1:40 PM - 2:30 PM - Navarro A Ballroom

Papers are six minutes, following a two/three minute discussion Moderators:

MAJ David M. Stanley, MC, USA & MAJ Necia M. Pope, MC, USAF Judges: John M. Barry, MD, William Bohnert, MD & Martin Dresner, MD

#### 12 1:40PM LT Chad R. Pusateri, D.O

Early Experience With Prostatic Urethral Lift For Treatment Of Lower Urinary Tract Symptoms.

#### 13 1:48PM Capt Doug S. Cho, MC, USAF

Efficacy Of Percutaneous Tibial Nerve Stimulation For Refractory Idiopathic Overactive Bladder At A Military Institution.

#### 14 1:56PM MAJ Matthew C. Kasprenski, MD

Genitourinary Injury Is Associated With Increased Injury Severity Among Service Members With Colorectal Injury Wounded During Operation Iraqi Freedom And Operation Enduring Freedom.

## 15 2:04PM LCDR Randy K. Sulaver, MC, USNR Farmland, Fertilizer and Hypospadias.

#### 16 2:12PM Alex D. Doudt. D.O.

Minimally Invasive Robot-assisted Vasovasostomy Using A Single Layer Anastomosis.

#### 17 2:20PM CPT Andrew N. Salomon, MC, USA

The Relationship of Body Mass Index and Prostate-Specific Antigen in a Longitudinal Cohort of Men with Rapid Weight Loss after Bariatric Surgery.

#### 2:28 PM Discussion (2 minutes)

#### **SESSION III - CLINICAL RESEARCH**

2:30 PM - 3:15 PM - Navarro A Ballroom

Papers are six minutes, following a two minute discussion Moderators:

LTC L. Andrew Evans, MC, USA & MAJ Molly E. Williams, MC, USA

#### 18 2:30PM LCDR David L. Griffin, MC, USN

Practice Does Not Necessarily Resemble Aua Guideline Perfection: Survey Results On Cryptorchidism.

#### 19 2:38PM LCDR Erik T. Grossgold, MC, USN

Long-term Urinary Function And Sexual Health Follow-up For Patients Who Underwent Hypospadias Repair In Childhood.

#### 20 2:46PM MAJ Richard B. Knight, MC, USAF

Laparoscopic Spiral Flap Pyeloplasty After Failed Robotic Pyeloplasty.

#### 21 2:54PM LT Ines Stromberg, MC, UCN

Do Additional Patient Reminders Optimize Clinical Schedules? A Retrospective Study In A Military Urology Practice.

3:02 PM Discussion (13 minutes)

## SESSION IV - PRACTICE MANAGEMENT/HEALTH CARE POLICY

3:15 PM - 4:45 PM - Navarro A Ballroom

#### **Moderators:**

COL Charles G. Henderson, MC, USA & MAJ Richard B. Knight, MC, USAF

- 22 3:15PM Ian M. Thompson III, MD Health Care Policy.
- 23 3:45PM COL Paul A. Friedrichs, MC, USAF Quality Improvement and Access to Care.
- **24 4:05PM LTC Timothy C. Brand, MC, USA**AUA Consensus Statement on Advanced Practice Providers.
- **25 4:25PM MAJ David M. Stanley, MC, USA** AHLTA Coding Tips to Optimize RVU Capture at MTFs.





## GU Bowl Official Tailgate Party - 5:30pm Navarro Ballroom Foyer

GU Bowl - 6:00 pm Navarro Ballroom







### FRIDAY, JANUARY 15

# Outline of Scientific Program 63rd Kimbrough

Annual Seminar \* Westin Riverwalk Hotel, San Antonio

<u>TIME</u>	<u>EVENT</u>	ROOM	
7:00 AM - 2:00 PM	Exhibit Hall open	Navarro B Ballroom	
7:00 AM - 8:15 AM	Networking Breakfast	Exhibit Hall	
7:00 AM - 5:00 PM	Registration	Navarro Ballroom Foyer	
7:00 AM - 5:00 PM	Slide Preview Station	Navarro Ballroom Foyer	
8:00 AM - 10:00 AM	Spouse Hospitality	Camino Real Room	
8:15 AM - 10:00 AM	Session V: Oncology: Bladder	Navarro A Ballroom	
10:00 AM - 11:00 AM	Refreshment Break	Exhibit Hall	
11:00 AM - 11:45 AM	Session VI: Oncology: Kidney/Testis	Navarro A Ballroom	
11:45 AM - 12:45 AM	Session VII: Pediatric Urology	Navarro A Ballroom	
12:45 PM - 1:45 PM	Genomic Health Lunch Symposium (Non CME)	Navarro A Ballroom	
2:00 PM - 4:00 PM	Session VIII: Trauma & Reconstruction	Navarro A Ballroom	
4:00 PM - 5:30 PM	Session IX: Podium & Poster	Navarro A Ballroom	
	Presentations & Reception		

Network Breakfast in Exhibit Area - starting at 7am

Bring your **Hello Card** 

to win prizes!

### Session V: Oncology: Bladder

8:15 AM - 10:00 AM - Navarro A Ballroom

Moderators: MAJ George J. Kallingal, MC, USA & Cory Hugen, MD

- **26 8:15AM Michael Porter, MD**Update on Urothelial Carcinoma.
- **27 8:45AM Robert Svatek, MD** TCC: PD-1/PD-L1 inhibitors.
- 28 9:15AM Dharam Kaushik, MD Update on Non-muscle Invasive Bladder Cancer.
  - 9:45AM Discussion (15 minutes)

10:00AM - 11:00AM

# Refreshment & Network Break in Exhibit Hall

Complete your Hello Card - to win prizes!!

### Session VI: Oncology: Kidney/Testis

11:00 AM - 11:45 AM - Navarro A Ballroom

Moderators: LTC Joseph R. Sterbis, MC, USA & CDR Michael Santomauro, MC, USN

- 29 11:00AM Ron Rodriguez, MD Surgical Management of Vena Caval Tumor Thrombus.
- 30 11:20AM Javier Hernandez, MD Surgical Management of Advanced Germ Cell Tumors.

11:40AM Discussion (5 minutes)

### Session VII: Pediatric Urology

11:45 AM - 12:45 PM - Navarro A Ballroom

Moderators: LTC Thomas E. Novak, MC, USA & Dennis Peppas, MD

- 31 11:45AM John Gearhart, MD Cloacal Exstrophy Management and Costs.
- **32 12:15PM Juan Prieto, MD**Buccal Mucosal Graft Vaginoplasty.
- 33 12:30PM Jeffrey Leslie, MD Neurogenic Bowel.

## **LUNCH PROGRAM**

12:45pm - 1:45pm - Navarro A Ballroom

Integrating Oncotype DX® GPS Into Clinical Practice.

James Clifton Vestal, MD USMD Hospital at Arlington, TX

Supported by Genomic Health - Non CME Symposium

#### **Session VIII: Trauma & Reconstruction**

#### 2:00 PM - 4:00 PM - Navarro A Ballroom Moderators:

MAJ Timothy Tausch, MC, USA & MAJ Steven J. Hudak, MC, USA

#### 34 2:00PM John P. Gearhart, MD

**GURS Lecture:** Bladder Exstrophy 2016 - Management and Long-Term Outcomes.

#### 35 2:20PM Paul Anderson, MD

Salvage Surgery for Hypospadias Complications in Adults.

#### 36 2:40PM COL.(Ret) Drew Peterson, MC, USA

Exenterative Surgery for Complications of Radiation Therapy.

#### 37 3:00PM Jean A. Orman, ScD

Battlefield Genitourinary Injury: What Do We Know and Where Do We Go?

#### 38 3:20PM Paul Anderson, MD

Reconstructive Genitourethral Surgery following Combat Injury: The UK Experience.

#### 39 3:40PM Jackson Kirkman-Brown, PhD



## Session IX: Podium/Poster Presentations & Reception

4:00 PM - 5:30 PM - Navarro A Ballroom/Foyer
15 minutes of viewing posters, followed by
2 minute podium presentation
Moderators/Judges: COL (Ret.) Martin L. Dresner, MD, FACS,
Corey M. Hugen, MD & MAJ Branden G. Duffey, MC, USAF

## Reception Supported by Boston Scientific Corp. & Reflexonic

#### 40 MAJ Stephen Overholser, MD, MC, USA

Radiographic Indicators Prior to Renal Cell Cancer Thrombectomy: Implications for Vascular Reconstruction and Mortality.

#### 41 2LT Bradley A. Potts, MSC, USA

Late Intermittent Sacral Neurostimulation Significantly Increases Bladder Capacity.

#### 42 Cornelia J. Willis, MC, USA

Factors Affecting Operative Times Of Initial Ureteroscopic Treatment Of Upper Tract Calculi.

#### 43 COL Robert C. Dean, MC, USA

Seminal Vesicle Sperm Aspiration from Wounded Warriors: A Case Series.

#### 44 LT Patrick L. Scarborough, MC, USN

Mesothelioma of the Tunica Vaginalis: A Case Report.

#### 45 CPT Seth P. Olcese, MC, USA

Impact of Surgical Trainee Involvement On Post-operative Outcomes After Radical Cystectomy: An Analysis Utilizing The National Surgical Quality Improvement Program.

#### 46 LCDR Jonathan Berger, MC, USN

Clitoropasty And Labiaplasty For Patient With Nonclassic Congential Adrenal Hyperplasia.

#### 47 LCDR Justin J. Nork, MC, USN

Paratesticular Desmoplastic Small Round Cell Tumor: A Case Report.

#### 48 LT Robert D. Williams, MC, USNR

Predicting Erythrocytosis In Hypogonadal Males Receiving Testosterone Pellets.

#### 49 CPT Nicholas Kuntz, MC, USA

Does Body Mass Index Impact the Outcomes of Tubeless Percutaneous Nephrolithotomy?

#### 50 Capt Matthew T. Stringer, MC, USAF

Management of Penoscrotal Extramammary Paget's With a Staged, Modified Mohs Technique.

#### 51 Capt MaryEllen T. Dolat, MC, USAF

Early Urologic Surgery Resideny Training and the Veteran's Affairs Eperience: a Historical Perspective.

#### 52 LCDR Randy Sulaver, MC, USNR

Pancreatic ESWL: Techniques and Outcomes of our Case Series.

#### 53 Anant Shukla, BA

Hexaminolevulinate Blue-light Cystoscopy In A Patient With Metastatic Melanoma Of The Bladder.

#### 54 Jacxelyn Moran, BS

Management Of Metastatic Penoscrotal Extramammary Paget's Disease.

#### 55 CPT Katherine Carlisle, MC, USA

Abdominal Wall Metastasis Of Renal Cell Carcinoma Following Partial Nephrectomy.

#### 56 LCDR John E. Kehoe, MC, USN

Abdominoscrotal Hydrocele: A Systematic Review.

#### 57 CPT Raffaella DeRosa, MC, USA

Ovotesticualar Disorders Of Sexual Development: A Case Of Hernia Uteri Inguinalis.

#### **SATURDAY, JANUARY 16**

# Outline of Scientific Program 63rd Kimbrough

Annual Seminar \* Westin Riverwalk Hotel, San Antonio

<u>TIME</u>	<u>EVENT</u>	ROOM	
7:00 AM - 2:00 PM	Exhibit Hall open	Navarro B Ballroom	
7:00 AM - 8:15 AM	Networking Breakfast	Exhibit hall	
7:00 AM - 5:00 PM	Registration	Navarro Ballroom Foyer	
7:00 AM - 5:00 PM	Slide Preview Station	Navarro Ballroom Foyer	
8:00 AM - 10:00 AM	Spouse Hospitality	Camino Real Room	
8:15 AM - 9:15 AM	Session X: Urologic Oncology	Navarro A Ballroom	
9:15 AM - 10:00 AM	Session XI: Clinical Research	Navarro A Ballroom	
10:00 AM - 10:45 AM	Refreshment Break	Exhibit Hall	
10:45 AM - 11:45 AM	Janssen Symposium (non CME)	Navarro A Ballroom	
11:45 AM - 12:45 PM	Session XII: General Urology	Navarro A Ballroom	
12:45 PM - 2:15 PM	SGSU Business Lunch	Navarro A Ballroom	
2:15 PM - 3:15 PM	Session XIII: Male Incontinence	Navarro A Ballroom	
3:15 PM - 4:30 PM	Session XIV: Female Incontinence & Voiding Dysfunction	Navarro A Ballroom	
6:30 PM - 9:30 PM	Kathy & Preston Littrell Awards Reception/Dinner	Hildago Ballroom	

7am-8:15am

Start your day off in the Exhibit Hall with Breakfast! Mix, Mingle & Learn!

Bring your Hello Card to win for prizes!

## **Session X: Urologic Oncology**

8:15 AM - 9:15 AM - Navarro A Ballroom

#### Moderators:

LT COL William M. Hilton, MC, USAF & CDR Sean P. Stroup, MC, USN

- 58 8:15AM Ian M. Thompson Jr., MD Prostate Cancer Biomarkers.
- 59 8:35AM Devalingam Mahalingam, MD

Current advances in the treatment of advanced CRPC.

**60 8:55AM Kenneth G. Nepple, MD**Optimizing Nutrition during the Perioperative Care of GU Oncology Patients.

#### Session XI: Clinical Research

9:15 AM - 10:00 AM - Navarro A Ballroom

Papers are six minutes, following a two/three minute discussion Moderators:

MAJ H. Cathy McLaughlin, MC, USA & MAJ Mark R. Anderson, MC, USA

61 9:15AM CPT Joseph J. Fantony, MC, USA

Discordant Venous Thromboembolism Rates In Us Vs Non-us Countries Following Radical Cystectomy: A Systematic Review And Meta-analysis.

62 9:23AM MAJ Ronald J. Caras, MC, USA

Potency Preservation After Radical Prostatectomy In Men With High-risk Features.

63 9:31AM LTC Andreas Martinschek, MC, USAF

Invasiveness And Post Aggression Metabolism In Davinci Prostatectomies - The Ipod Study.

64 9:39AM Cornelia J. Willis, MC, USA

Factors Affecting Stone-free Rates With Primary Ureteroscopic Treatment Of Upper Tract Calculi.

- 65 9:47AM Brig Gen James T. Turlington, USAF MC (RET). Selective Caliceal Catheterization for Stone Manipulation.
  - 9:55AM Discussion (5 minutes)

#### 10:00am-10:45am



# Refreshment & Network Break in Exhibit Area

To Win Prizes!!

**Supported by Boston Scientific Corp.** 

NON CME PROGRAM

**SATURDAY, JANUARY 16, 2016** 

#### SPECIAL PROGRAM

10:45 AM - 11:45 AM - Navarro A Ballroom

# Key Clinical Findings for Patients With mCRPC That Has Progressed on Androgen Deprivation Therapy

William K. Johnston III, MD

Michigan Institute of Urology, Associate Professor,
Beaumont School of Medicine, Novi, MI

Supported by Janssen - Non CME Symposium



**SATURDAY, JANUARY 16, 2016** 

#### SCIENTIFIC PROGRAM

### **Session XII: General Urology**

11:45 AM - 12:45 PM - Navarro A Ballroom

#### **Moderators:**

CDR Hernan O. Altamar, MC, USN & LTC Kuwong B. Mwamukonda, MC, USA

- **10:45AM LeRoy A. Jones, MD**Intralesional Xiaflex for Peyronie's Disease.
- 67 12:05PM Michael Liss, MD Infection and Antibiotic Stewardship.
- **68 12:25PM Timothy Tseung, MD**Practical Metabolic Management of Nephrolithiasis.

12:45pm - 2:15pm - Navarro A Ballroom

## SGSU MEMBERS BUSINESS LUNCH



**Ticket Required** 

Hear about the state of the branches of the Services

# **Supported by Reflexonic & Boston Scientific**

## Session XIII: Male Incontinence

2:15 PM - 3:15 PM - Navarro A Ballroom

#### **Moderators:**

MAJ Humberto G. Villarreal, MC, USA & MAJ Timothy Tausch, MC, USA

- 69 2:15PM Allen F. Morey, MD Male SUI Update.
- 70 2:35PM Point-Counterpoint: UDS prior to Male SUI surgery: Always, Sometimes or Never.

Allen F. Morey, MD, Andrew C. (Drew) Peterson, MD, FACS, LTC Jack R. Walter, MC, USA

## Session XIV: Female Incontinence and Voiding Dysfunction

3:15 PM - 4:30 PM - Navarro A Ballroom Moderators:

LTC Jack R. Walter, MC, USA & COL James R. Jezior, MC, USA

- 71 3:15PM MAJ Forrest C. Jellison, MC, USAF Mesh Complications after Female Pelvic Surgery.
- **72 3:30PM Stephen R. Kraus, MD, FACS** Update on AUA OAB guidelines.
- 73 4:00PM Panel Discussion: Sacral Neuromodulation.

Moderator: MAJ Forrest C. Jellison, MC, USAF Panel: Stephen R. Kraus, MD, FACS CDR Chong (Jay) Choe, MC, USN

## 6:30pm-9:30pm - Hildago Ballroom

## Kathy & Preston Littrell Awards Reception/Dinner

Featured Guest Speaker

Colonel (Ret.) Clifford Buckley, USAF, MC, CFS



Speaking on his personal experience with "Air Force ParaRescue participation in Viet Nam."

Colonel (Ret.) Clifford Buckley, USAF, MC, CFS is currently the Chief, Surgery Service at the VA Medical Center as well as the Chief, Vascular Surgery at the Baylor-Scott-White Medical Center in Temple, Texas.

## **SUNDAY, JANUARY 17**

# Outline of Scientific Program 63rd Kimbrough

Annual Seminar \* Westin Riverwalk Hotel, San Antonio

<u>TIME</u>	<u>EVENT</u>	<u>ROOM</u>
7:00 AM - 8:00 AM	Networking Breakfast	Navarro A Ballroom
7:00 AM - 12:00 PM	Registration	Navarro Ballroom Foyer
8:00 AM - 9:00 AM	Abstract Presentation & Course Summary	Navarro A Ballroom
9:00 AM - 12:00 PM	Mock Oral Boards	Navarro B Ballroom



## Session XV: Presentation & Course Summary

8:00 AM - 9:00 AM - Navarro A Ballroom

- 74 8:00AM Kambiz Tajkarimi, MD
  - An Objective Evaluation of Viberect® (Male Medical Vibrator) in Inducing Functional Erection in Comparison to Intracavernosal Vasoactive Injection using Penile Duplex Doppler Ultrasound Blood Flow Analysis.
- 75 8:15AM MAJ Steven J. Hudak, MC, USA & Lt. Col. Timothy M. Phillips, MC, USAF Meeting Summary Highlights.

SCIENTIFIC PROGRAM

SUNDAY, JANUARY 17, 2016

#### MOCK ORAL BOARDS

9:00 AM - 12:00 PM - Navarro B Ballroom

Need help for the boards? Be sure to sign up for this session at the Registration Desk.

Attendees will circulate through examiner stations and be asked board questions.



# Looking forward to seeing you all next year!



2017 San Diego, CA

Sheraton San Diego Hotel on Harbor Island

January 11-15, 2017



# RESIDENTS COMPETITION - I ABSTRACTS

## TREATMENT TRENDS FOR CLINICAL STAGE I TESTICULAR SEMINOMA IN A LARGE, EQUAL-ACCESS MEDICAL SYSTEM: AN EXAMINATION OF ADJUVANT TREATMENTS FROM 2001-2011 IN THE DEPARTMENT OF DEFENSE TUMOR REGISTRY

Jonathan T. Wingate, M.D., Ruth Etzioni, Ph.D., Dusten M. Macdonald, M.D., Timothy C. Brand, M.D.: Tacoma, WA

(Presentation to be made by Dr. Jonathan Wingate)

**Purpose:** Treatment for clinical stage I testicular seminoma is variable, and in many cases, may relate to the nuances of access that are available at the treating facility. The landscape for adjuvant treatment in clinical stage IA/IB seminoma is rapidly evolving, and now, active surveillance is the preferred treatment modality. The Military Health System is an equal-access system with tri-service medical facilities located throughout the world. These facilities are charged with caring for our service members — a patient-base rich with men in their 20's, and largely a transitory population, with frequent deployments and transfers. We sought to examine the trends for use of adjuvant therapies for clinical stage IA/IB seminoma in this setting.

Materials and Methods: The ACTUR (Automated Central Tumor Registry) database was queried for cases of clinical stage IA/IB seminoma diagnosed between 2001-2011. The ACTUR database is the cancer registry system for the Department of Defense, and it is maintained by the Joint Pathology Center in the National Capital Region. A total of 412 men were identified with clinical stage IA/IB testicular seminoma from 2001 to 2011 that had records adequate for inclusion. Logistic regression models were created to analyze the association of year of diagnosis, patient age, and race with the administration of adjuvant radiotherapy, chemotherapy, and active surveillance.

**Results:** The use of adjuvant radiotherapy in this population decreased significantly from 2001 to 2011. In 2001, 83.3% of patients received radiotherapy, compared to only 24.0% in 2011. During this time, the use of chemotherapy increased significantly. In 2001, 0% of patients received chemotherapy, compared to 40.0% in 2011. Later year of diagnosis was significantly associated with a markedly higher rate of receiving chemotherapy relative to radiotherapy (p<0.001, 2006 to 2011 vs 2001-2005 RRR 17.4, 95% CI 7.29-41.68). Later year of diagnosis was not significantly associated with receipt of surveillance (p=0.389, 2006 to 2011 vs 2001-2005 OR 0.80, 95% CI 0.48-1.33). Black race or age was not significantly associated with adjuvant therapy received.

**Conclusions:** The use of adjuvant radiotherapy for clinical stage I testicular seminoma has decreased significantly in contemporary times in an equal-access system. In our cohort, this can be largely explained by substitution of chemotherapy for radiotherapy. The use of active surveillance has remained relatively steady. The lower utilization of active surveillance in our cohort versus other large national studies may relate to the transitory nature of our patient base.

## ROBOT-ASSISTED LAPAROSCOPIC RETROPERITONEAL LYMPH NODE DISSECTION FOR NON-SEMINOMATOUS TESTICULAR TUMORS IN THE PRIMARY SETTING: A MULTI-INSTITUTIONAL ANALYSIS

Michael T. Marshall, M.D., Kimberly L. Fischer, M.D., Haidar M. Abdul-Muhsin, M.B.Ch. B.\*, Michael Santomauro, M.D., Ithaar H. Derweesh, M.D.\*, Sean P. Stroup, M.D., Erik Castle, M.D.\*, James Porter, M.D.\*, and James O. L'Esperance, M.D.:

San Diego, CA

(Presentation to be made by Dr. Marshall)

**Introduction:** Robot-assisted laparoscopic retroperitoneal lymph node dissection (RA-RPLND) for testicular cancer is an advanced surgical technique that has been slow to gain acceptance due to technical challenges and concerns about patient safety and oncologic efficacy. Herein, we report a multi-institutional analysis of RA-RPLND compared to the traditional open midline approach (O-RPLND) in the primary setting.

**Materials and Methods:** We conducted a multicenter, retrospective review of 117 men with non-seminomatous testicular cancer who underwent either RA-RPLND or O-RPLND in the primary setting. The robotic technique performed has been described previously. A prospective, nerve-sparing approach was used for a majority of cases. Pertinent comparisons were made between each approach.

#### **Results:**

#### Operative Outcomes

Operative Time	EBL	? Hemoglobin	Post-operative morphine equivalents	Length of Hospitalization	High-grade complication rate (%)	Antegrade ejaculation (%)
302.95	100	1.05	22.25	2	0.00%	83.33%
287.69	200	2.7	101.9	5	10.42%	72.73%
0.243	<0.001	<0.001	0.003	<0.001	0.018	

#### Robotic Open p-value

#### **Oncologic Outcomes**

Total Lymph	Positive Lymph	Adjuvant	Follow-up	Recurrence	In-field recurrence
Nodes	Nodes (%)	Chemotherapy	duration (months)	rate (%)	rate (%)
23	22.95%	64.29%	38.45	4.35%	0.00%
27	23.08%	66.67%	82.18	4.17%	2.08%
0.171	1.000	<0.001	<0.001		

Robotic Open p-value

**Conclusions**: RA-RPLND for non-seminomatous testicular cancer in the primary setting is safer, less morbid, and better tolerated than the traditional open approach. Our data suggests oncologic equivalency between the two approaches substantiating the continued use of RA-RPLND to treat this select group of patients.

Source of funding: None

## PATTERNS IN TREATMENT DECISION-MAKING AND LONGITUDINAL REGRET FOR LOW RISK PROSTATE CANCER PATIENTS MANAGED ON ACTIVE SURVEILLANCE

Daniel J. Kim, MD1; Lauren M. Hurwitz, MHS2; Jennifer Cullen, PhD MPH2; Jane Hudak, PhD, RN2; Maryellen Colston, RN2; Judith Travis, RN2; Sally Elsamanoudi, MPH2; Inger L. Rosner, MD1,2

1Department of Urology, Walter Reed National Military Medical Center, Bethesda, MD

2Center for Prostate Cancer Disease Research, Rockville, MD

Presentation by Daniel J. Kim, MD

**Introduction:** This study examined decision-making factors, decisional regret (DR), and health-related quality of life (HRQoL) among patients choosing AS in a racially diverse, equal access health care setting.

**Materials and Methods:** This prospective cohort study examined 539 NCCN low risk PCa patients enrolled between June 2006 and January 2014 in a multidisciplinary clinic, prior to evaluation and counseling. Baseline demographics and clinical features and pre- and post-clinic questionnaires were collected. The validated Decisional Regret Scale was administered at 6, 12, 24, and 36 months post-treatment decision. HRQoL was assessed using the validated EPIC and SF36 questionnaires at regular intervals through 36 months.

Results: Among the eligible patients, 514 (95.4%) enrolled in this study and 86 (17%) chose AS. During the 8-year study period, selection of AS increased from 6% to 37.5%. Among ther 86 who selected AS initially, 13% latter progressed to treatment with curative intent (in a median of xx months). The AS cohort was significantly older butthis difference disappeared over time. Decisional Regret (DR) remained low over time, but was significantly lower for those on AS versus treated patients at 12 months (p=0.04). Patients managed on AS experienced declines in sexual function over the 3-year follow up (p=0.0164).

**Conclusions:** In this single military institution, management of PCa patients on AS was noted to increase steadily over time. Patients reported low DR and no meaningful declines in HRQoL were observed (except for sexual function??). This information may help physicians provide better counseling and allow patients to make more informed treatment decisions.

#### RACIAL DIFFERENCES OF ERG FREQUENCIES IN PROSTATE CANCER

<u>Jason Sedarsky</u>, Denise Young, Yongmei Chen, Michael Degon, Philip Rosen, Inger L. Rosner, Isabell A. Sesterhenn, Jennifer Cullen, Shiv Srivastava, Albert Dobi, Center for Prostate Disease Research; Department of Surgery, USUHS; Bethesda, MD, Walter Reed National Military Medical Center, Urology Service; Bethesda, MD, Joint Pathology Center; Silver Spring, MD

(Presented by: CPT Jason Sedarsky)

**Introduction:** Activation of the *ERG* oncogene by genomic rearrangements, most frequently *TMPRSS2-ERG* gene fusion is the most prevalent early genomic alteration reported in prostate cancer. The high prevalence of *ERG* was established mainly by assessments of Western populations, mainly Caucasian descents. We have shown that ERG frequency is significantly lower in prostate cancers of African Americans than in Caucasian American men. In the past decade, multiple studies have now highlighted significantly different frequencies of ERG among different races across geographic regions, suggesting that the dominant tumor type is genetically distinct between these groups. These findings highlight the need for systematic research of biomarkers that may be more prevalent in the genetically distinct prostate tumor types present in different racial groups.

**Methods:** For comparative evaluation of ERG frequencies, ERG oncoprotein expression was analyzed in whole-mounted sections of 684 Caucasian American (CA) and 373 African American (AA) patients who underwent radical prostatectomy at Walter Reed National Military Medical Center. ERG oncoprotein frequencies were evaluated by immunohistochemistry, a surrogate of *ERG* gene fusions in prostate cancer. Reports on various racial groups and geographic regions were examined in meta-analyses for ERG frequencies.

**Results:** The frequency of detecting ERG positive index tumors was strikingly higher in Caucasian Americans than in African American men (49.8% vs. 23.6%, p<0.0001). Similar, difference was found when all tumor foci were examined (72.1% vs. 47.6%, respectively; p<0.0001). Comparative meta-analyses consistently identified prostate cancer patients of Caucasian ancestry with the highest likely hood of harboring ERG positive prostate tumor type. We also noted three major limitations in current reports on racial distribution of ERG. First, the source of specimen can have a major impact on reported ERG frequencies. Second, detection methods focusing on *TMPRSS2-ERG* fusion or ERG oncoprotein vary widely across studies, limiting comparability of results. Third, self reported race classification will need to be replaced by genotyping to better establish the clinically relevant demarcation between genetically distinct groups.

**Conclusion:** Recognizing these limitations, we can more accurately interpret existing studies, improve the comparability of worldwide efforts by refined reporting criteria for molecular subtyping of prostate cancers in the context of racial diversity.

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## PROSTATE CANCER GENE EXPRESSION SIGNATURES ASSOCIATED WITH SEMINAL VESICLE INVASION AND BIOCHEMICAL RECURRENCE AFTER RADICAL PROSTATECTOMY

Travis C. Allemang M.D., Michael B. Williams M.D., Shilpa Katta, Gyorgy Petrovics PhD, Isabell A. Sesterhenn M.D., Shiv Srivastava PhD, David G. McLeod M.D., Inger Rosner M.D., and Albert Dobi PhD: Portsmouth, VA, Norfolk, VA and Rockville, MD

(Presentation to be made by Dr Travis C. Allemang)

**Objective:** Major strides in oncologic treatment and prognostication have occurred secondary genomic analysis. The highly variable behavior of prostate cancer and the morbidities of prostate cancer treatment have shaped the need for a personalized approach to prostate cancer risk stratification and for the development of targeted therapies. The goal of this study was to identify prostate cancer gene expressions associated with seminal vesicle invasion and biochemical recurrence (BCR).

Methods: Gene expression data was analyzed from the publicly available NCBI Gene Expression Omnibus GSE32448 developed by the CPDR. Using laser capture micro-dissection, tumor cells and patient matched nonadjacent normal prostate epithelial cells were isolated for microarray analysis using Affimetrix Gene Chip (Hb133A-2) from 40 Caucasian men who underwent radical prostatectomy. The first group was stratified by seminal vesicle involvement at time of final pathologic staging in poorly differentiated tumors. A second group was identified to have biochemical recurrence following radical prostatectomy with negative surgical margins. Unique gene expression signatures for seminal vesicle involvement and BCR were identified using bioinformatics analysis. These signatures were then applied to Genomatix⊚ software package for defining key regulatory nodes. Further gene signature comparison was made to the gene panels utilized in the commercially available Prolaris™, Oncotype DX Genomic Prostate Score™, and Decipher™.

Results: In the first group, eight subjects were identified to have pT3b disease and poorly differentiated tumors, which were compared to eleven subjects without seminal vesicle involvement and poorly differentiated tumors. A total of 1,617 unique gene signatures were identified to be associated with pT3b disease, of which 94.9% were up-regulated. The original 40 subjects were followed clinically for a median of 15.6 years. Eleven subjects, who had negative surgical margins, developed BCR at a median of 1.8 years post-radical prostatectomy. Compared to the seventeen subjects who never developed BCR, 147 unique gene signatures were identified to be associated with BCR, of which 78.2% were down-regulated. Thirteen of the genes found to be unique to pT3b disease was associated with gene panels utilized by Prolaris™, Oncotype DX Genomic Prostate Score™, and Decipher™. Two of the genes found to be unique for BCR were associated with the gene panels utilized by Prolaris™, Oncotype DX Genomic Prostate Score™, and Decipher™. ERG was not found to be associated with biochemical recurrence, though it was found to be up-regulated in those which did not develop BCR.

Conclusions: These results suggest that unique gene expression signatures exist for prostate cancer which develops local involvement of the seminal vesicle. Furthermore, unique gene expression signatures are present at the time of radical prostatectomy and are strongly associated with biochemical recurrent disease. There is an expression signature of 90 genes that are uniquely expressed among those which develop BCR and are not expressed in pT3b disease. Thirteen genes from the pT3b group are similar to the panel of genes which are evaluated by the current commercially available gene expression panels; however, two genes from the BCR group were shared among these commercially available gene panels. The identification of BCR associated genes could serve as future markers for enhancing personalized risk stratification of those men with clinically localized prostate cancer. Future work is warranted to validate the expression of these pT3b and BCR similar genes as they could serve to compliment current prognostic approaches.

Source of Funding: None

## DEVELOPING A XIAFLEX PROGRAM: THE WALTER REED EXPERIENCE AND COMPLICATIONS

Carolyn A. Salter, MD, Robert C. Dean, MD: Bethesda, MD

(Presentation to be made by Dr. Carolyn Salter)

**Objectives:** Peyronie's Disease (PD) is a common condition. Treatment ranges from oral therapy, topical or intralesional treatments, or surgical intervention. Xiaflex (collagenase clostridium histolyticum) is a newer treatment for PD that was recently approved by the FDA for use in these patients. We describe how our facility has instituted a program for delivering this novel therapy and compare our complication rates with the published clinical trials.

**Methods:** A retrospective, observational records review of all patients who have enrolled in our Xiaflex program from FDA approval in December 2013 to July 2015. Patients were excluded if they did not complete at least one cycle of Xiaflex. A total of 17 men were included in the analysis. Data was collected on baseline and follow-up symptoms, curvature and imaging findings as well as the number of completed cycles and complications.

**Results:** A total of 119 injections were administered to 17 patients. Twelve of our 17 patients (70.58%) had adverse events and all of these 12 had ecchymosis with swelling and pain being less common (23.52% and 29.41% respectively). Many patients had a combination of these symptoms. Atraumatic penile fractures were noted in 2 patients (11.76%).

Conclusions: While the majority of our patients experienced adverse events with Xiaflex injections, most of these were minor in severity. Our overall complication rate of 70.58% was less than that of the IMPRESS trials (84.2%). Interestingly, we had 2 patients with atraumatic penile fractures. This unique complication has not been previously published. The IMPRESS trials had 3 penile fractures (0.54%) but all were related to sexual intercourse. Overall, our patients differed from the patients in that series because we included patients with calcified plaques (47.05%) and frequently administered 5 or more cycles of injections (35.29%). More data is needed to determine if these differences explain our differing side effect profile and the unusual experience of atraumatic fractures.

**Source of Funding:** Walter Reed Department of Surgery (pending)

## RELATIONSHIP BETWEEN CHRONIC TESTICULAR PAIN AND MENTAL HEALTH DIAGNOSES

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(Presentation to be made by Dr. Kelley)

**Purpose:** To identify a potential relationship between orchialgia and mental health disorders in active duty men.

**Methods:** Following IRB approval, AHLTA/CHCS was queried using specific CPT codes to identify activity duty men evaluated between January 2005 and March 2015 for testicular pain and specific DSM-IV diagnoses (anxiety, depression, PTSD, adjustment disorder). Exclusion criteria included acute conditions (torsion, mass, trauma, open wound, etc), anatomic abnormalities (hydrocele, spermatocele, etc) and/or a history of scrotal/inguinal surgery (vasectomy, hernia, varicocelectomy, etc).

**Results:** A total of 489 active duty men were identified as having been seen for evaluation of testicular pain in the years queried. The average age of presentation was 34 years. Of those men identified 330 (66%) were in the Army, 120 (24%) men were in the Air Force, 35 (7%) were in the Navy, 11 (2%) were in the Marines, and 2 were in the Coast Guard (0.4%). Enlisted personnel represented 78% (n=257) of the those men in the Army. 104 (21%) men had been evaluated for both testicular pain and one of the diagnoses of the DSM-IV categories studied. Of those with both conditions diagnosed 48% (n=50) had an anxiety diagnosis, 43% (n=45) had a depression diagnosis, 43% (n=45) had a diagnosis of PTSD, and 32% (n=33) had an adjustment disorder diagnosis.

**Conclusions:** This study demonstrates that in active duty mean, a significant number of men evaluated for chronic testicular pain are also evaluated for a mental health disorder. All four categories of mental health disorders occurred evenly in this group of men. Further studies are needed to determine not only a temporal relationship between these conditions, but also if treatment of one condition can improve the other.

Source of Funding: None

## TESTOSTERONE REPLACEMENT AMONG HYPOGONADAL MEN—DIFFERENCES BETWEEN UROLOGIC AND ENDOCRINOLOGIC CARE

LT Paul D. McClain, M.D., LT Mark Steinmetz, M.D., LT Travis Allemang, M.D., CDR R. Chanc Walters, M.D.

Eastern Virginia Medical School and Naval Medical Center Portsmouth, Virginia

Presentation by LT Paul D. McClain, MD

**Purpose:** The treatment of hypogonadism has grown exponentially in recent years. FORTESTA© 2% testosterone gel is the DOD first line agent for treating hypogonadism. This study retrospectively evaluates differences in urologic and endocrinologic hypogonadal patients on FORTESTA©.

**Materials and Methods:** Records were reviewed of all urology and endocrinology hypogonadal men who received testosterone therapy with FORTESTA© from JUL 2012 – JUL 2015. Serum testosterone levels prior to and after initiating FORTESTA© were reviewed, as well as prior testosterone therapy.

**Results:** 85% of patients had follow-up testosterone levels checked. The mean pre-FORTESTA© levels for urology and endocrinology groups were 325 ng/dL and 298 ng/dL, respectively. The mean post-FORTESTA© levels were 384 ng/dL versus 440 ng/dL, a post-treatment difference of 59 ng/dL versus 142 ng/dL. Of the patients who responded to FORTESTA©, endocrinology patients had a slightly higher mean change in testosterone level of 381 ng/dL versus 303 ng/dL. However, in the non-responder groups, the changes in testosterone level were similar (-128 ng/dL for urology versus 129 ng/dL for endocrinology). Urology patients were less likely to be on prior testosterone replacement therapy (43% vs. 66%), and a higher percentage of urology patients were therapeutic prior to initiating FORTESTA© (75% vs. 57%). 52% of patients in both groups became therapeutic post-FORTESTA©.

**Conclusions:** The efficacy of treatment with FORTESTA© does not appear to be different between urology and endocrinology patients. Endocrinology patients who respond to FORTESTA© showed a slightly greater increase in mean testosterone levels. Follow-up appears to be equivalent between these two specialties' populations.

Source of Funding: None

# COMPARING THE INCIDENCE AND CLINICAL SIGNIFICANCE OF ARTERIAL INJURY DURING VARICOCELE REPAIR USING LOUPES VERSUS A SURGICAL MICROSCOPE

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Presentation to be made by Dr. Seth Olcese

**Objectives**: Previous studies have reported the arterial ligation rate during varicolectomy using 2.5X magnification (loupes) to be 5 percent, with prior historical data demonstrating a rate of 1 percent. This study was performed to histologically determine the rate of arterial injury in varicocele ligation surgery using a surgical microscope with 120X magnification and to determine the clinical significance of these arterial injuries.

**Methods**: Using a prospective, IRB approved trial, 37 men with varicoceles underwent subinguinal microscopic varicocele ligation at Tripler Army Medical Center. Segments from all ligated vessels were histologically examined. The patients were followed prospectively with physical exam and/or testicular ultrasound to determine the effect of arterial injury on testes volume. Data obtained was compared to our previous study using loupe magnification.

**Results**: A total of 181 vessel segments were examined. Arterial ligation was identified in 5 of 181 specimens (2.76%) and occurred in 4 of 37 patients (10.8%) undergoing microscopic varicocelectomy, compared to

7 of 132 specimens (5.3%) in 6 of 41 patients (12%) undergoing loupe varicocelectomy (p=0.37 and p=0.74, respectively). An average of 4.89 vessels were ligated in each patient during microscopic varicocelectomy versus 3.2 vessels in varicocele repairs performed under loupe magnification. In the patients with arterial injury, post-operative recovery was uncomplicated and there was no associated testicular atrophy. Thus there remains no apparent effect of arterial injury on clinical outcome.

**Conclusions**: Subinguinal varicocelectomy may be performed using microscopic magnification without significant risk of testicular atrophy. Rates of arterial injury are comparable to historical data from cases performed with 2.5X loupe magnification. Overall, arterial ligation appears to have little clinical significance with respect to testis volume.

# MEDICAID PATIENT ACCESS TO UROLOGIC CARE IN THE ERA OF THE AFFORDABLE CARE ACT: A BASELINE TO MEASURE POLICY EFFECTIVENESS

Authors: Stephen Overholser, MD; CJ Stimson, MD; Rachel Sosland, MD; Ian Thompson, III, MD

University of Texas Health Science Center at San Antonio, Department of Urology, San Antonio, Texas, Vanderbilt University Medical Center, Department of Urologic Surgery, Nashville, Tennessee

Johns Hopkins Hospital, James Buchanan Brady Urological Institute, Baltimore, Maryland

Presentation by Stephen Overholser, MD

**Purpose:** Medicaid expansion under the Affordable Care Act sought to increase access to health care by expanding access to insurance. The association between access to Medicaid and access to urologic health care, however, has not been tested. To test this association we performed a prospective, survey-based analysis of Medicaid acceptance rates and new appointment wait times for a patient seeking urologic care. This study presents baseline data collected prior to Medicaid expansion in 2014.

**Methods:** A primary cohort representing 20% of all urologic surgeons in a nationwide database was surveyed using a simulated patient script. The data was collected in November 2013 prior to Medicaid expansion. The primary outcome measures were Medicaid acceptance and new patient appointment wait times. A practice-level, secondary cohort was also analyzed.

**Results:** 650 urologic surgeons were successfully sampled in the primary cohort. 271 (41.7%) did not accept any Medicaid, 205 (31.5%) accepted some but not all Medicaid, and 174 (26.8%) accepted all Medicaid insurance plans. The median wait time for a new patient appointment was 18 days. Medicaid acceptance rates were similar in the secondary cohort. The percentage of urologists accepting all forms of Medicaid varied significantly by state, ranging from 10-90%.

**Conclusions:** Medicaid patient access to urologic care is restricted, suggesting that access to Medicaid insurance coverage may not translate into access to urologic care. Subsequent data collection will assess trends in Medicaid patient access to urologic care following Medicaid expansion.

# RESIDENT IMPACT ON PATIENT & SURGEON SATISFACTION AND OUTCOMES: EVIDENCE FOR HEALTH SYSTEM SUPPORT FOR UROLOGY EDUCATION

Bradford Stevenson, Jessica Healey, William Severino, Thomas Baron, David Lieber,
David Roszhart, Kevin T. McVary, Tobias Kohler

**Introduction and Objectives:** Involvement in patient care and in surgical procedures is an integral part of resident training. Several studies describe resident impact on surgery times and complication rates, but few examine resident involvement on patient and physician satisfaction. We sought to assess these outcomes from a urology group previously not covered by residents allowing for direct comparison of outcomes before and after resident coverage was initiated.

**Methods:** Urologic procedures completed in our institution by four attending surgeons working without residents from January 2010 to December 2011 were compared to the same surgeons working with the assistance of SIU residents for a two year period. The average time per surgical case, post-operative complications, readmission rate, and length of hospital stay were compared between the two periods. Additionally, results from Press-Gainey Consumer assessments were used. The attending physicians reported their job satisfaction, quality of life, and perceptions of patient care.

**Results:** Overall, 2,243 urology patient cases were measured. Of these, 1,015 patients were in the pre-resident period (839 surgical; 176 non-surgical) and 1,228 patients were in the post-resident period (960 surgical; 268 non-surgical). For the period with resident coverage there was an increase in OR average operating times for the select procedures (Table). Readmission rate increased with resident coverage for both surgical and nonsurgical cases (p = 0.0370 and p=0.0447). No difference in complications between the two time periods for surgical and non-surgical cases (p=0.2269 and p=1.000, respectively) were found. Importantly, patients' satisfaction scores were higher in every category and patients they were more likely to report that they 'always' received quality care with residents present(78.6 % vs 82.5%). Faculty perceptions of job satisfaction, quality of life, and perception of patient care were all substantially improved with the addition of residents.

**Conclusions:** There was increased OR time and re-admittance rates with resident involvement, but no impact on complications. There was measurable improvement in attending job satisfaction, perception of patient satisfaction and QOL with resident coverage with a trend toward increased patient satisfaction. Such metrics have positive impact on health delivery, which should justify an increase in resident education support.

# RESIDENTS COMPETITION - II ABSTRACTS

# EARLY EXPERIENCE WITH PROSTATIC URETHRAL LIFT FOR TREATMENT OF LOWER URINARY TRACT SYMPTOMS

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(Presentation to be made by Dr. Chad Pusateri)

**Objective:** Benign prostatic hyperplasia (BPH) and resulting lower urinary tract symptoms (LUTS) affect more than 12 million men in the U.S. Here we present our 18 month experience using Prostatic Urethral Lift (PUL) as a minimally invasive option for treatment of these men.

Materials and Methods: Between March 2014 and August 2015, 68 men presenting to one of two clinics with LUTS suggestive of BPH were treated with PUL. Patients were offered PUL if inclusion criteria were met, including IPSS ≥10, Qmax ≤12 ml/s, prostate volume ≤100 ml, and absence of an obstructing median lobe or a high bladder neck on pre-procedural cystoscopy. We evaluated post-procedural complications, IPSS, QoL, Qmax, and sexual function using the SHIM questionnaire.

Results: A total of 68 patients were treated during this period. Mean age was 65 years [47-83]. Mean prostate volume was 38.6mL [17-80]. Mean pre-procedural IPSS and QoL were 23 [10-35] and 4.2 [2-6], respectively. Mean pre-procedural Qmax 11.1 ml/s [3.3-15.7]. Median number of implants used was 4 [2-6]. Rates of post-procedural catheterization 36% with mean time of catheterization 1.6 days [1-4]. Adverse events included retention [1], hematuria [1], and UTI [1]. Most common complaints were transient dysuria, pelvic pain, hematuria, the majority of which resolved within 1-2 weeks. There were no denovo complaints of erectile or ejaculatory dysfunction with mean pre and post-procedural SHIM 11.4 [0-25] and 12 [0-24], p=0.7, respectively. The mean IPSS and QoL improvement was significant with PUL (-11.9 [1-26] and -2.3 [0-6], p<0.001), with a mean improvement in Qmax of 6.4 ml/sec ([0.5-28.8], p=0.001).

**Conclusions:** PUL improved LUTS and urinary flow in nearly every patient without adversely affecting sexual function. Our results show average improvements of IPSS -11.9, QoL -2.3, and Qmax 6.4 ml/s, which are consistent with published series. The procedure was well tolerated and demonstrated an excellent safety profile in appropriately selected patients.

# EFFICACY OF PERCUTANEOUS TIBIAL NERVE STIMULATION FOR REFRACTORY IDIOPATHIC OVERACTIVE BLADDER AT A MILITARY INSTITUTION

Doug S Cho MD\*, Joseph Lukan BSN, Pansee Uberoi MD\*, Timothy M Phillips MD, Forrest C Jellison MD: San Antonio, Texas

(Presentation to be made by Dr. Doug Cho)

**Objectives:** Percutaneous tibial nerve stimulation (PTNS) is a treatment for refractory idiopathic overactive bladder (RIOAB). The purpose of this study is to describe the early experience and efficacy of PTNS for RIOAB.

**Methods:** We reviewed all patients who were referred for PTNS treatments at a military institution from July 2011 to April 2015. A total of 55 patients were identified. Of these, 21 patients were referred for RIOAB and completed 12 weeks of treatment. Outcomes were followed with bladder diary and validated questionnaires (Incontinence Impact Questionnaire-7, Urogenital Distress Inventory-6) at baseline and 12 weeks. Statistical analysis consisted of Wilcoxon's rank sum and Fisher's exact test. Logistic regression was performed for associations of clinical response to treatment.

**Results:** Baseline characteristics for PTNS treatment were identified. The majority of subjects were female at 71%. The median age was 67 and median BMI was 29. 95% of patients had been treated with at least one antimuscarinic, 14% with mirabegron, and 14% with botox. A total of 9 subjects underwent UDS prior to therapy, of which 1/3 were diagnosed with detrusor overactivity. Subjects experienced significant decrease in urge urinary incontinence (6.3 to 3.9 episodes, p=0.01), nocturia (2.8 to 1.8 episodes, p=0.02), and frequency (15.1 to 11.4 episodes, p=0.02) after 12 treatments. Of those with urge incontinence, 27% of patients became dry after therapy. Subjects also had decreased UDI-6 (37.9 to 21.2) and IIQ-7 (51.0 to 20.2) scores (p<0.05). BMI > 30 was associated with improved clinical response to PTNS based on univariate analysis (p=0.02). No complications were reported.

**Conclusion:** PTNS is a safe treatment option for RIOAB. Patients experienced significant subjective and objective improvement in OAB symptoms. There was also an association of improved response with BMI > 30.

# GENITOURINARY INJURY IS ASSOCIATED WITH INCREASED INJURY SEVERITY AMONG SERVICE MEMBERS WITH COLORECTAL INJURY WOUNDED DURING OPERATION IRAQI FREEDOM AND OPERATION ENDURING FREEDOM

Matthew C. Kasprenski, MD, Sean C. Glasgow, MD\*, and Steven J. Hudak, MD: San Antonio, TX

(Presentation to be made by Dr. Matthew Kasprenski)

**Objectives:** The Joint Surgical Transcolonic Injury or Ostomy Multi-theater Assessment (J-STOMA) project is an ongoing initiative to examine outcomes in patients with colorectal (CR) injury sustained during Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF). Initial evaluation of the J-STOMA cohort revealed a 34% rate of concomitant genitourinary (GU) injury among service members (SMs) with CR injury. Our objective was to evaluate the association of GU injury with overall injury severity, need for fecal diversion, and mortality among Coalition SM's with CR injury from the J-STOMA cohort.

**Methods:** Department of Defense electronic health records of patients in the J-STOMA database were reviewed to identify those SMs with synchronous GU and CR injury. Demographic data, Injury Severity Score (ISS) and survival were reviewed. The ISS of SMs with only CR injury were compared to those with CR and concomitant GU injury using the student's t-test. Fecal diversion and mortality was compared between the two groups using the Chi-squared test.

**Results:** Among 755 SMs with colorectal injuries sustained during OIF and OEF, 260 (34%) had at least one associated GU injury. SM's with combined CR and GU injury had greater overall injury severity compared to those with CR injury alone (mean ISS 25.0 vs. 20.4, p<0.001) and were more likely to have a diverting colostomy (63% vs. 41%, p<0.001). A greater proportion of SMs with combined GU and CR injuries died of their wounds (13% vs. 8.4%). However, the difference was not statistically significant (p=0.06).

**Conclusion:** GU injury was a frequent comorbidity among coalition SMs who sustained CR injury during OIF/OEF. The higher ISS, higher fecal diversion rate, and trend toward higher mortality suggest that GU + CR injury is a unique wound pattern which may benefit from ongoing research to improve strategies of injury prevention and management.

**Source of Funding:** The author(s) acknowledge Department of Defense Trauma Registry (DoDTR) and Patient Administration Systems and Biostatistics Activity (PASBA) for providing data for this study. Research funded in part by Defense Health Program 6.7 FY2012 grant.

#### **FARMLAND, FERTILIZER AND HYPOSPADIAS**

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**Introduction:** Hypospadias is a common congenital anomaly among boys, with varying degree of expression. The etiology of hypospadias is known to be multifactorial and potentially includes environmental factors. A recent report from Indiana indicated and increased incidence of hypospadias in rural communities, suggesting a potential link with fertilizer use. Since rural Illinois shares many of the same characteristics, we sought to identify a similar link to farmland and potential fertilizer use.

**Material and Methods:** We retrospectively reviewed all boys that had been evaluated for the diagnosis of hypospadias at out institution. Home county and township for each child were identified. The numbers of patients per county were compared to the USDA, National Agricultural Statistics Service 2012 Census of Agriculture – County Data, which provided the amount of farmland, fertilizer use, and irrigation use per county.

**Results:** A total of 315 patients from 46 counties were identified. The proportion of farmland per county ranged from 1.4-99.2% with an average 77.7% (SD 18.2%). There was a trend toward significance in the incidence of hypospadias and % of farmland per county with r=0.24 and p=0.10. The proportion of county land fertilized ranged from 0.07-71.6% with an average 50.4% (SD 15.9). The incidence of hypospadias and proportion of county land fertilized did reach a statistically significant association with r=0.28 and p=0.05.

**Conclusion:** Based on the above overview, there appears to be an association between hypospadias and the amount of fertilizer used on farmland. Although not reaching statistical significance there may be a correlation with overall farmland and hypospadias. Ongoing accrual of patients, and extension to other farming communities, will permit identification of potential environmental factors that may predispose to the development of hypospadias.

\*Our thanks to Dr Martin Kaefer at Indiana University School of Medicine with whom we are collaborating on this ongoing project.

# MINIMALLY INVASIVE ROBOT-ASSISTED VASOVASOSTOMY USING A SINGLE LAYER ANASTOMOSIS

Michael T. Marshall, M.D., Alex D. Doudt, D.O., Sean P. Stroup, M.D., Chong H.
Choe, M.D.: San Diego, CA
(Presentation to be made by Alex D. Doudt, D.O.)

**Introduction:** Microscopic vasovasostomy (MVV) has been completed to restore fertility in men who have undergone vasectomy since 1977. Classically, the vas deferens anastomosis has been completed using a multi-layer technique. Recently, studies have shown similar outcomes with a single layer anastomosis. In 2004, robot assisted vasovasostomy (RAVV) was first introduced. To date, all reported RAVV techniques that have evaluated post-operative semen parameters have described using a multi-layer anastomosis. We describe our RAVV experience using a single layer anastomosis.

**Materials and Methods**: A retrospective review was completed of all RAVV performed using a single layer anastomosis at NMCSD between 2009 and 2015. Our technique consisted of bilateral vertical scrotal incisions to expose the vasal defect, a microscopic evaluation of proximal vasal fluid to evaluate for the presence of sperm, a distal vasal evaluation to assess patency, and a robot-assisted, single layer vasal anastomosis with 8-10, 9-0 nylon sutures. Perioperative variables evaluated included patient age, BMI, and obstructive interval. Intraoperative variable evaluated included vasal fluid characteristics and the presence of sperm, both motile and non-motile. Post-operative semen analyses were performed to assess for post-procedural patency.

**Results**: 64 RAVV using a single layer vasal anastomosis were performed between 2009 and 2015. Average patient age in years and BMI was 34.72 and 27.24, respectively. Average obstructive interval was 5.78 years. Mean operative time was 198.42 minutes. 45 patients have completed a post-operative semen analysis to date, of which 88.9% had sperm present. Average time to return of sperm was 5.66 months. Average total sperm count was 27.26 million and motility was 27.66%.

**Conclusions**: Patency rates following RAVV using a single layer anastomosis are comparable to the published rates following microscopic, multi-layer anastomosis.

#### The Relationship of Body Mass Index and Prostate-Specific Antigen in a Longitudinal

#### **Cohort of Men with Rapid Weight Loss after Bariatric Surgery**

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**Purpose:** Prior cross-sectional studies have demonstrated an inverse relationship between prostate specific antigen (PSA) and body mass index (BMI). It has been unclear if this association is due to a hormonal effect, or is purely dilutional. We sought to test for an association with BMI and PSA and prostate cancer in obese male patients undergoing bariatric surgery at Madigan Army Medical Center.

**Materials and Methods:** After IRB approval, retrospective chart review was performed on 261 male patients aged 40 years or older with a BMI greater than 35 who underwent bariatric surgery at Madigan Army Medical Center from July 2002 to July 2014. Primary study variables of age, BMI, and PSA were collected immediately preoperatively, and followed until December 2014. The relationships between age, BMI, and PSA were then examined over time using SPSS v22 linear regression analysis.

**Results:** Of the 261 eligible surgical patients, 161 patients had preoperative data available for review, and 119 had postoperative follow-up data, and met inclusion criteria. The mean BMI fell from 43.13 kg/m² to 31.63 kg/m², and the mean PSA rose from 0.99 ng/mL to 1.35 ng/mL at an average of 35 months follow-up. A linear inverse relationship was seen with a change in BMI resulting in a -0.0335 change in PSA. Linear regression analysis demonstrated statistical significance of this relationship with a Pearson correlation coefficient of -0.189 (p = .040). This association was found to be independent of age.

**Conclusion:** Surgically-induced weight loss results in a statistically significant rise in PSA with longitudinal evaluation. Our next goal is to examine the temporal relationship between the change in weight, and change in PSA in hopes that this will help us understand the etiology of the association. We hypothesize that if the association is hormonal in nature, there may be a lag in change in PSA vs. an immediate rise if the association is dilutional. We have also opened a prospective study to examine the hormonal milieu of these men with rapid weight loss after bariatric surgery in hopes that it will help us further understand the impact of obesity on prostate cancer screening, and prostate cancer risk.

# CLINICAL RESEARCH ABSTRACTS

# PRACTICE DOES NOT NECESSARILY RESEMBLE AUA GUIDELINE PERFECTION: SURVEY RESULTS ON CRYPTORCHIDISM

David Griffin, LCDR, NMCSD, San Diego, CA

**Objective:** To evaluate current practice patterns in the management and screening of cryptorchidism among pediatric urologists and compare them to the 2014 AUA guidelines on cryptorchidism.

**Materials and Methods:** A 14-question survey was disseminated to members of the Society for Pediatric Urology (SPU) to assess their current practice patterns.

Results: There were 187 responses (38.4% response rate) with a notable bimodal distribution in respondent practice years with 39.3% in practice ≤ 10 years and 41.4% for >20 years. Despite guideline recommendations against the use of ultrasound, the majority of respondents will use it in cases of obese children or bilateral nonpalpable testes (>50%). In the workup for bilateral nonpalpable testes, most respondents (>80%) perform an endocrine workup. Despite this, 55.1% will proceed with surgical exploration even if the workup indicates absence of testicular tissue.

Subgroup analysis revealed those in practice ≤10 years vs >20 years were more likely to perform two-stage Fowler Stephens in cases of short vessels (80.8% vs 58.1%) and to perform transscrotal orchidopexy in boys amenable to that approach (79.5% vs 52%). If an examination under anesthesia reveals the testicle in the scrotum, 46.5% still perform orchidopexy, citing concerns the testicle will ascend or parental concerns about the diagnosis.

**Conclusion:** Based on the responses some discordance exists between practice patterns and guideline recommendations. Although surgery may be avoided with endocrine evaluation for suspected anorchia, many respondents will still perform exploration. The evaluation, management and surgical approach in cryptorchidism may be influenced by years in practice.

### LONG-TERM URINARY FUNCTION AND SEXUAL HEALTH FOLLOW-UP FOR PATIENTS WHO UNDERWENT HYPOSPADIAS REPAIR IN CHILDHOOD

Erik T. Grossgold, M.D., Lauren Sartor, Zev Leopold, Joel Vetter, MS, Alethea G. Paradis, MTS, Steven B. Brandes, M.D. (Presentation to be made by Dr. Erik Grossgold)

Introduction and Objectives: Surgical repair of hypospadias typically occurs in early childhood. A number of complications related to surgery emerge after puberty and continue into adulthood, many affecting urinary and sexual function. There is a paucity of literature on long-term follow-up. Barbagli, et al (J Urol 2010; 183:207-11) suggested that hypospadias surgical techniques utilized over three decades ago had high failure rates and poor cosmesis well into adulthood, requiring multiple complex surgical repairs. Our study aims to assess the urinary and sexual health outcomes of adult patients who underwent childhood hypospadias repair.

**Methods:** 672 men now > 16 years old underwent hypospadias repair at St. Louis Children's Hospital between 1988 and 2001. Patients were contacted by phone and then emailed a questionnaire regarding urinary and sexual health selected from validated questionnaires: IPSS, ICIQ-SF, PDQ, SHIM, Mulhall Hardness Score, SEAR questionnaire, and the PPPS. Of the 672 contacted, 38 completed the surveys and 29 of those had complete data. Cases were stratified based on surgery type, presence of curvature prior to repair, age at repair, and original location of meatus.

Results: Site of the original meatus was glanular/coronal in 15, penile shaft in 10, and peno-scrotal in 4. Repairs were 11 substitution, 8 MAGPI, and 10 grouped as other, which consisted of meatoplasty, TIP, Mathieu, Thiersch-Duplay, and/or GAP procedures. Mean age at surgery was 23.4 months, and mean age at follow-up was 18.8 years. Patients were satisfied or very satisfied in regards to penile appearance (80, 70, 75%), length of penile axis (87, 100, 100%), penile skin (87, 80, 100%), glans shape (87, 90, 75%), penile length (73, 90, 50%), shape/position of meatus (80, 90, 100%), confidence in erection (80, 80, 100%), and hardness of penetration (93.4, 100, 100%) for the three surgical repair groups, respectively. No statistical differences were noted for all three categories in function or aesthetics. No or little urinary bother was reported in 53.4, 100, and 75%, and no urine leak was reported in 80, 90, and 100% of the three groups, respectively. Distal meatal location was associated with a higher AUA bother score (p=0.039). Patients classified as "other" had higher rates of urinary strain (p=0.020), nocturia (p=0.019), and worse appearance (p=0.032).

**Conclusions:** Hypospadias surgeries performed within the last two decades on children by dedicated pediatric urologists result in excellent to good patient reported outcomes as to adult sexual and voiding function, as well as aesthetic penile appearance. Most adult patients are satisfied with their sexual and voiding function outcomes, regardless of their initial meatal location or surgery type.

#### Source of Funding: None

**Disclaimers:** The views expressed in this article are those of the author(s) and do not necessarily reflect the official policy or position of the Department of the Navy, Department of Defense, or the United States Government.

I am a military service member. This work was prepared as part of my official duties. Title 17, USC, §105 provides that 'Copyright protection under this title is not available for any work of the U.S. Government.' Title 17, USC, §101 defines a U.S. Government work as a work prepared by a military service member or employee of the U.S. Government as part of that person's official duties.

The study protocol was approved by the Washington University School of Medicine Institutional Review Board in compliance with all applicable Federal regulations governing the protection of human subjects.

# LAPAROSCOPIC SPIRAL FLAP PYELOPLASTY AFTER FAILED ROBOTIC PYELOPLASTY

Richard B. Knight, M.D.: RAF Lakenheath, UK

(Presentation to be made by Dr. Richard B. Knight)

**Introduction and Objectives:** Recurrent ureteropelvic junction (UPJ) obstruction following pyeloplasty presents a complex surgical problem. Several factors determine the approach and management including the length and location of the stricture, the degree of hydronephrosis, renal anatomy and function, history of nephrolithiasis, and bladder volume if considering Boari flap. For patients with a recurrent UPJ obstruction and moderate to severe hydronephrosis, the laparoscopic spiral flap pyeloplasty is an excellent option.

Materials and Methods: A 26-year-old female presented with right renal colic and hydronephrosis. She had previously undergone a laparoscopic appendectomy complicated by retroperitoneal hematoma resulting in a right UPJ obstruction. She then underwent a right robotic-assisted laparoscopic pyeloplasty. Due to recurrent obstruction at the UPJ, she underwent two subsequent laser endopyelotomy procedures. After evaluation with retrograde pyelography, computed tomography, and renal lasix MAG3 nuclear scan, the patient elected to undergo laparoscopic spiral flap pyeloplasty. A surgical video was created to demonstrate the technique.

**Results:** The laparoscopic spiral flap pyeloplasty was performed in 354 minutes, including cystoscopy with stent placement at the beginning of the case. One 5mm and two 12mm ports were used. A Keith needle and vessel loop proved helpful to retract the renal vessels anteriorly, providing exposure of the entire renal pelvis. The gonadal vessels required ligation and division. There were no complications. The Foley catheter was removed on the morning of post-operative day one. The abdominal drain was removed on the evening of post-operative day one and the patient was discharged home. A double-J ureteral stent remained in place for one month postoperatively. The patient's renal colic completely resolved and follow up ultrasound at three months postoperatively demonstrated no hydronephrosis.

**Conclusions:** For cases in which ureteral mobilization is likely to be difficult and the renal pelvis is hydronephrotic, laparoscopic spiral flap pyeloplasty is a useful technique to address recurrent UPJ obstruction.

# DOES ADDITIONAL PATIENT REMINDERS OPTIMIZE CLINICAL SCHEDULES? A RETROSPECTIVE STUDY IN A MILITARY UROLOGY PRACTICE

LT Ines Stromberg, USN, MD, CDR R. Chanc Walters, USN, MD: Portsmouth, VA (Presentation to be made by Dr. Stromberg)

**Purpose:** Missed appointments are a detrimental factor on healthcare causing inefficiency, increase costs and delays in diagnosis and treatment. This is especially troublesome in clinics with access to care limitations. Working on identifying modifiable factors is important to fully utilize our health care system. We analyzed whether a system contacting clinic patients 24 hours before appointments in addition to the command automated system would improve clinical care metrics.

**Materials and Methods:** Clinic records were retrospectively reviewed over a 6 month period comparing two 3 month periods. In Block 1 the patients were contacted by the automated reminder system only. In Block 2 all patients were contacted within 24 hours and by the automated system. No-show rates, facility cancellations, patient cancellations and access to care were evaluated from the two blocks.

**Results:** In Block 1 the no show rate was 5-6%, patient cancellation rate was 16-17%, and the facility cancellation rate was 3-8%. In Block 2 the no show rate was 4-6%, patient cancellation rate was 17-20%, and facility cancellation rate was 4-7%.

Total planned appt
Total encounters
Kept
W alk in
No-show
Pt cancel
Facility

cancel

Block 1			Block 2		
May	June	July	August	September	October
738	842	837	739	807	1,013
662	709	730	661	699	881
644	684	709	646	679	859
18	25	20	15	20	22
52/6%	57/6%	55/ 5%	35/4%	61/6%	54/4%
143/ 17%	154/ 16%	164/ 16%	182/ 20%	165/ 17%	245/20%
26/ 3%	69/7%	85/ 8%	45/5%	41/ 4%	81/7%

**Conclusions:** A reminder call the day prior to appointments did not improve clinic attendance rates for our practice and may not be the best utilization of personnel. Further studies to better characterize patients that do not show may allow targeted contact to improve no show rates.

# PODIUM/POSTER PRESENTATIONS ABSTRACTS

# RADIOGRAPHIC INDICATORS PRIOR TO RENAL CELL CANCER THROMBECTOMY: IMPLICATIONS FOR VASCULAR RECONSTRUCTION AND MORTALITY

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**Introduction/Background:** Renal cancer may invade the inferior vena cava creating more complex surgical intervention. We investigate radiographic findings that may predict vascular reconstruction prior to surgery and future mortality.

**Patients and Methods:** Radiographic findings included Mayo clinic risk factors for vascular reconstruction: right-sided tumor, AP diameter of the IVC at the ostium of the renal vein (RVo)  $\geq$  24.0 mm, radiographic identification of complete occlusion of the IVC. Additional factors included thrombus in the lumen of the hepatic veins and metastasis. Along with other demographic factors, analysis included chisquared analysis for vascular reconstruction and logistic regression for mortality. A Kaplan-Meier curve was created for the most significant radiologic factor.

**Results:** Thirty-seven patients underwent IVC tumor thrombectomy at 2 institutions from 4/2007 - 2/2015. We found that Mayo risk factors of 0, 1, 2, and 3 and proportions of vascular reconstruction of 0%, 0%, 12.5%, and 13.6%, respectively (P=0.788). Hepatic vein involvement (HVI) was the most significant determinate of death in multivariable analysis, controlling for size of IVC at hepatics, pulmonary metastasis, and Fuhrman grade (P=0.02, Log-rank p=0.002).

**Conclusion**: Mayo risk factors did not predict vascular reconstruction in our small cohort of level II-IV IVC thrombus undergoing IVC thrombectomy. Tumor thrombus traveling into the lumen of the hepatic veins was a significant risk for accelerated mortality.

### LATE INTERMITTENT SACRAL NEUROSTIMULATION SIGNIFICANTLY INCREASES BLADDER CAPACITY

Bradley A. Potts, B.S. 1\*, Danielle J. Degoski, B.S. 1\*, Jillene M. Brooks, B.S. 1\*, Andrew C. Peterson, M.D. 1, Dwight E. Nelson, Ph.D. 2\*, Thaddeus S. Brink, Ph.D. 2\*, Matthew O. Fraser, Ph.D. 1\*:

1 Durham, NC; 2 Minneapolis, MN

(Presentation to be made by 2LT Bradley A. Potts)

**Objectives:** Sacral Neurostimulation (SNS) is an FDA approved treatment for urge incontinence. The therapy has been most commonly used as a continuous treatment but several preclinical studies and common clinical use suggest that discontinuous use may also be efficacious. Using the rat model for SNS, we investigated whether continuous SNS is required for increasing bladder capacity or if intermittent application targeted to certain phases of a filling cycle (e.g. immediately post-void, timed to mid-cycle, or immediately preceding voids) can produce similar effects.

**Methods:** Female Sprague-Dawley rats (n=24) were urethane-anesthetized (s.c. 1.2 g/kg) and implanted with a jugular venous catheter and transvesical bladder catheter. The L6/S1 nerve trunks were isolated bilaterally and two electrodes were placed on each exposed nerve. Stimulating electrodes were electrically insulated with parafilm and mineral oil. The wounds were closed with suture. Animals were mounted in Ballman cages to ensure free movement of the bladder catheter, which was connected to infusion pumps and pressure transducers. After continuous control cystometry (0.1 ml/min), and before every stimulation period, True Bladder Capacity (TBC) was demonstrated with stable single-fill cystometrograms. In experimental series one, we applied SNS at the onset of bladder filling for 25%, 50%, 75%, and 100% of the previous control filling cycle duration (n=10). In experimental series two, SNS was applied during the first, second, third, and fourth 25% and the first and second 50% of control fill times in random or pseudorandom (all 25% randomized, followed by 50% randomized) order. Control and test TBC were analyzed using the Friedman Test and Dunn's Multiple Comparisons Test.

**Results Obtained:** In the first series, a significant increase in TBC was observed only when SNS was applied for 75% or 100% cycle duration (30 and 35%, resp., p<0.05). In the second series, significant increases in TBC only occurred during the fourth 25% and second 50% periods (32 and 43%, resp., p<0.001). No differences in randomization approaches were found. Pre-SNS baseline control values did not change in any systematic fashion in either series.

**Conclusions:** These data indicate that therapy timed to coincide with the final 50% of the bladder fill cycle is critical for SNS effects for increasing bladder capacity. A clinical strategy taking advantage of this principle may improve battery life in patients and reduce frequency of reoperation for battery replacement. The result also suggests important physiological differences among the different phases of bladder filling that should be explored.

Source of Funding: Medtronic Inc., Minneapolis, Minnesota.

# FACTORS AFFECTING OPERATIVE TIMES OF INITIAL URETEROSCOPIC TREATMENT OF UPPER TRACT CALCULI

Cornelia J. Willis\*, Benjamin J. King M.D.\*, Peter W. Callas Ph.D.\*, Kevan M. Sternberg M.D.\*: Burlington, Vermont

(Presentation to be made by Ms. Cornelia J. Willis)

**Introduction:** Factors affecting operative time in the ureteroscopic treatment of upper tract calculi are not well described. Stone composition and surgeon experience have been evaluated, but the combination of patient and stone factors impacting ureteroscopic operative time has not been studied. We looked at these factors in a contemporary review of patients undergoing ureteroscopy.

**Methods:** In a retrospective review, 121 patients undergoing initial, unilateral ureteroscopy from 10/2012-12/2014 had preoperative non-contrast CT imaging, kidney stone analysis, and follow-up imaging and were included in this study. Stones were treated with basket extraction or laser lithotripsy with active stone retrieval. Factors reviewed included patient demographics, stone burden, number, stone location, density, and dominant composition. Univariate and multivariate analysis was performed.

**Results:** The mean OR time was 135 minutes. Lower pole presence (p<0.001), volume (p<0.001), and composition (p=0.01) were independent predictors of OR time. Procedures involving lower pole stones required 20.0 minutes longer than those without lower pole stones (95% CI 10.3-29.6, p=<0.001). Volume ≥60 mm² took 28-29 minutes longer than stone volumes <60. Uric acid stones were associated with longer OR times (Figure 1).

**Conclusions:** In our study population, lower pole presence, larger stone volume, and uric acid stone composition led to longer operative times for primary unilateral ureteroscopy. These findings assist in pre-procedure planning and patient counseling.

F ŎÖ ŐŎŒPÒĎŌ	Time (min)	95% CI	p value
COM v. UA	-15.8	-31.4, - 0.2	0.05
COD v. UA	-27.8	-47.1, - 8.6	0.005
Infectious v. UA	-41.7	-74.9, - 8.5	0.01

Figure 1. COM: Calcium Oxalate Monohydrate, COD: Calcium Oxalate Dihydrate, UA: Uric Acid

# SEMINAL VESICLE SPERM ASPIRATION FROM WOUNDED WARRIORS: A CASE SERIES

Mae Wu Healy. D.O.\*, Belinda J. Yauger, M.D.\*, Aidita N James, PhD.\*, Robert C. Dean, M.D.: Bethesda, MD

(Presentation to be made by Dr. Robert Dean)

**Objective:** In the past decade, there has been an increase in dismounted Improvised Explosive Devices (IEDs) encountered on the battlefield. Associated injuries include lower extremity amputations with or without pelvic and perineal trauma. Thus, options to harvest sperm may be limited based on the type and extent of injury. An alternative technique to the standard Testicular Sperm Extraction (TESE) or Microsurgical Epididymal Sperm Aspiration (MESA) is a seminal vesicle sperm aspiration, successfully described in cases of ejaculatory duct obstructions or primary anorgasmy. Given the type of pelvic injuries seen in wounded warriors, we believe seminal vesicle sperm aspiration is a feasible option to retrieve sperm with the goal of cryopreservation for future use in In Vitro Fertilization with Intra-cytoplasmic Sperm Injection.

**Design:** Retrospective case series.

**Setting:** Data from Assisted Reproductive Center at Walter Reed National Military Medical Center in Bethesda, Maryland.

**Patient(s):** Six wounded warriors underwent seminal vesicle harvesting for sperm retrieval.

**Main Outcome Measure(s):** Demographics of patients, type of injury, seminal vesicle fluid analysis post-harvest, post-thaw analysis, fertilization rates during IVF/ICSI, pregnancy rates, live birth outcomes.

**Results:** Six patients are presented with lower extremity, pelvic, and perineal injuries resulting from dismounted IEDs in theater. They underwent seminal vesicle sperm retrievals within 5-12 days of the initial injury. Sperm retrieved were analyzed and cryopreserved. Two patients subsequently attempted IVF/ICSI with fertilization documented. Currently, there have been one pregnancy and no live births.

**Conclusion:** Seminal vesicle sperm aspiration is an option to retrieve sperm in wounded warriors or trauma patients with severe testicular injury.

#### MESOTHELIOMA OF THE TUNICA VAGINALIS: A CASE REPORT

Patrick L. Scarborough M.D., Genevieve Dowling M.D., Philip H. Kim M.D.\*: San Diego, CA

(Presentation to be made by Dr. Scarborough)

**Objectives:** Mesothelioma of the tunica vaginalis is a rare diagnosis, comprising less than 1% of all mesotheliomas, with approximately 200 cases described in the literature. We describe a case of mesothelioma of the tunica vaginalis in a patient with a history of a large left hydrocele.

Case Presentation: The patient was a 66 year old male who presented to the Emergency Department with complaints of a left scrotal and groin mass with associated pain, initially felt to be an incarcerated inguinal hernia. Evaluation by the Emergency Department Staff included a scrotal ultrasound which demonstrated a large left hydrocele and multiple papillary paratesticular masses. Tumor markers were drawn and were negative. The decision was made to proceed with surgery, and a left radical orchiectomy was performed through an inguinal incision. Pathology demonstrated malignant mesothelioma of the tunica vaginalis. The patient was referred to Oncology for discussion of further treatment.

**Discussion:** Mesothelioma of the tunica vaginalis is a rare diagnosis which usually presents with malignant features and aggressive behavior. Management typically consists of a radical orchiectomy with follow-on chemotherapy. Given the aggressive nature of the disease, the prognosis is generally poor. Early resection and initiation of adjuvant therapy are key to effectively treating these patients.

# IMPACT OF SURGICAL TRAINEE INVOLVEMENT ON POST-OPERATIVE OUTCOMES AFTER RADICAL CYSTECTOMY: AN ANALYSIS UTILIZING THE NATIONAL SURGICAL QUALITY IMPROVEMENT PROGRAM

Seth P. Olcese M.D., Raffaella DeRosa M.D, Sean Q. Kern M.D., Alexander J. Ernest M.D., Michael Lustik M.S., Leah P. McMann, M.D., Joseph R. Sterbis, M.D: Honolulu, HI

(Presentation to be made by Dr. Seth P. Olcese)

**Objectives**: Short-term perioperative outcomes of patients undergoing radical cystectomy (RC) have been extensively reviewed, however, the influence of surgical trainee involvement (STI) on these outcomes has not been examined. We sought to determine the impact of STI during RC with regard to post-operative outcomes utilizing the National Surgical Quality Improvement Program (NSQIP).

**Methods**: A retrospective multi-institutional study was performed using the NSQIP database to compare pre-operative risk factors, 30-day post-operative complications, prolonged length of stay (pLOS), and 30-day readmission rates between RC performed with or without STI.

**Results**: A total of 3,454 patients undergoing RC from 2006-2013 were retrospectively identified, with data regarding STI available for 1140 patients. Mean operative times were significantly longer with STI (358 min vs 288 min for attending operating alone, p<0.001). Unadjusted outcomes demonstrated greater overall and serious morbidity with STI (p=0.014 and p=0.001, respectively), as well as greater bleeding (p=0.000). Risk adjusted analysis with propensity score matching demonstrated greater overall morbidity (OR 1.35, p=0.039) and serious morbidity (OR 1.50, p=0.006) with STI, with no increased risk of mortality (OR 1.73, p=0.209), Clavien 4 complications (OR 1.03, p=0.919), or unplanned readmission (OR 0.59, p=0.094). In addition, LOS was more likely to be less than 12 days (OR 0.65, p=0.019) with STI. Subgroup analysis demonstrated longer operative times for PGY 6-9 vs PGY 1-5 (391 min vs 336 min, p<0.001), with a greater risk of overall morbidity for PGY 6-9 (OR 1.37, p=0.05).

**Conclusions:** Surgical trainee involvement is associated with longer operative times and more bleeding resulting in a greater risk of overall and serious morbidity, with PGY 6-9 trainees demonstrating longer operative times and increased overall morbidity than more junior trainees. However, there is no increase in Clavien 4 complications, mortality, or unplanned readmissions and patients are less likely to have a pLOS. We suspect that the increase in morbidity likely reflects a difference in oncologic demographics which is not quantified in the NSQIP data.

### CLITOROPASTY AND LABIAPLASTY FOR PATIENT WITH NONCLASSIC CONGENTIAL ADRENAL HYPERPLASIA

Jonathan H. Berger, MD, Chong Choe, MD, Matthew Christman, MD: San Diego, CA

(Presentation to be made by Dr. Berger)

Nonclassic congenital adrenal hyperplasia (NCAH) results from 21-hydroxylas deficiency and results in mutations to CYP21A2 on chromosome 6p21. The autosomal recessive mutation typically results in androgen excess with phenotypic outcomes of masculinization in the female (XX) patient (in addition to acne, alopecia, hirsutism, impaired reproductive function, metabolic abnormalities).

We report the case of a 24 year old female with NCAH who complained of clitoral and right labial pain during intercourse. After informed consent she underwent clitoroplasty and bilateral labiaplasty. Her clitoris on stretch was noted to be longer than 6cm.

During the procedure, the clitoris was degloved. The urethral plate was dissected off the corpora cavernosa. Each corpora cavernosa was retracted in its respective lateral direction. An approximately 3cm incision was then made over the corpora cavernosa in an inverted "U" shape and the erectile tissue was transected and removed (sparing some dorsal aspects of the erectile tissue to preserve the neurovascular bundle). We then closed the corporal cavernosa incision in a Heineke-Mikulicz fashion, effectively shortening the length of the clitoris (this was followed by a PDS "tack" of the glans of the clitoris to the most proximal aspect of the remaining corporal bodies for further shortening).

Next our attention was turned to the labial tissues (primarily the right labia minora) which patient reported caused significant pain during intercourse due to the redundant tissue folding back on itself during vaginal penetration. Extraneous tissue on both sides (focusing primarily on the right sided redundant tissue) was excised. Skin over all wounds was closed with chromic sutures in an interrupted fashion. Throughout the entirety of the case, we preserved the ventral urethral plate and the ventral spongiosum tissues to the glans of the clitoris and we did not violate the dorsal corporal space where the neurovascular bundles lie.

Patient overall tolerated the procedure well and reported she was very pleased with her outcome. She did have concerns for remaining redundant tissue of the left labia minora folding inward into the path of her urine stream during urination when she voided in a squatting position. She was taken back for revision of left labiaplasty. Regarding final results, she reports good sensation in clitoris and no further sexual or urinary complaints.

#### PARATESTICULAR DESMOPLASTIC SMALL ROUND CELL TUMOR: A CASE REPORT

Justin J. Nork DO, Sean P. Stroup MD San Diego, California

(Presentation to be made by Dr. Nork)

Desmoplastic small round cell tumor (DSRCT) is a rare type of soft tissue sarcoma first described by Gerald and Rosai in 1989. The tumor is characterized by nests of small round blue cells separated by desmoplastic stroma. Aggressive in nature, it typically affects children, adolescents and young adults. Mesenchymal in origin, the majority of tumors occur in the abdomen on peritoneal surfaces. Less commonly tumors can present in the paratesticular region. Treatment is multimodal, consisting of chemotherapy and complete surgical resection. Survival of DSRCT patients has been disappointing; however, appears to have an improved prognosis in extra-abdominal presentations. We report the case of a 28 year old male who presented with a right paratesticular mass demonstrated to be DSRCT upon orchiectomy. He was treated with adjuvant chemotherapy followed by a post-chemotherapy, robotic assisted laparoscopic retroperitoneal lymph node dissection.

# PREDICTING ERYTHROCYTOSIS IN HYPOGONADAL MALES RECEIVING TESTOSTERONE PELLETS

Robert D. Williams M.D.\*, Caroline K. Snowden\*, Gregory A. Broderick M.D.\*: Jacksonville, FL

(Presentation to be made by Dr. Robert Williams)

**Objectives**: The FDA recently added a warning label to testosterone replacement therapy (TRT) in early 2015 addressing concerns for increased risk of cardiovascular, cerebrovascular, and venous thrombolic events. Erythrocytosis—defined as a hematocrit >0.52—has been theorized to be the cause for the increased risk. The primary aim of this study was to describe the change in hematocrit after TRT specifically with testosterone pellets.

Materials and Methods: All patients who had testosterone pellet procedures at Mayo Clinic Florida since 2010 to the June 2015 were included. The procedure included implantation of 10 pellets subcutaneously, each 75 mg. Patients that had less than three total procedures were excluded. Patients with an average interval between treatments of >180 days were excluded. Baseline hematocrit was recorded as well as all hematocrit levels while on therapy. The main outcome evaluated was change in hematocrit.

**Results**: 59 patients met the inclusion/exclusion criteria. Baseline mean total testosterone level was 323.1 ng/dL. Mean hematocrit prior to therapy was 0.426. Mean length of treatment was 26.1 months. Mean total treatment number was 7.3. Mean change in hematocrit from baseline to within 6 months of therapy was +0.9 (p<0.05), to 6 to 12 months was +1.8 (p<0.05), to 1 to 2 years was +2.2 (p<0.05), and greater than 2 years was +2.9 (p<0.05). Mean change in hematocrit from baseline to after treatment 3 was +3.6 (p<0.05), after treatment 6 was +2.0, and after treatment 9 was +3.3. 40 patients had consecutive treatments for 1 year; of these, 18% had erythrocytosis or performed phlebotomy. 28 patients had consecutive treatments for 2 years, 30% of them had erythrocytosis or performed phlebotomy. No statistically significant associations were identified using univariate analysis.

**Conclusions**: Hematocrit increases by a predictable amount after TRT with testosterone pellets. The data shows the increase is more time-dependent than treatment-dependent. More research needs to be done to identify subjects that will be more sensitive to erythrocytosis.

# DOES BODY MASS INDEX IMPACT THE OUTCONES OF TUBELESS PERCUTANOUS NEPHROLITHOTOMY?

Nicholas J. Kuntz MD, Andreas Neisius MD, Gastón M. Astroza MD, Matvey Tsivian MD, Michael N. Ferrandino MD, Glenn M. Preminger MD, Michael E. Lipkin MD: Durham, NC

(Presentation to be made by Dr. Nicholas Kuntz)

**Introduction and Objectives:** Tubeless percutaneous nephrolithotomy (tPNL) has become a widely accepted practice, having been shown to be safe and efficacious for the treatment of renal calculi with high stone-free and low complication rates. We sought to evaluate whether body mass index (BMI) has an impact on the outcomes of tPNL.

Materials and Methods: We retrospectively reviewed patients who underwent tPNL at our institution from 2006-2011. Specifically, stone-free rates (no residual fragments at 3 month imaging) complications (Clavien-Dindo classification) and hospital length of stay (LOS) were assessed. Patients were divided into 4 groups based on BMI: <25, 25-29.9, 30-34.9 and ≥35kg/m². Baseline characteristics and outcomes were compared between BMI groups. Multivariable logistic regressions were used to evaluate the independent contribution of BMI as a predictor of outcomes.

**Results:** We identified 268 patients who fulfilled study requirements. The overall stone free and complication rates were 52.5% and 19.0%, respectively. Minor and severe complication comprised 10.4% and 8.6%, respectively. Univariate and multivariable analyses revealed no association between BMI and stone-free or complication rates. However, patients with a normal BMI had significantly higher transfusion rates (p=0.005), and were significantly more likely to have a prolonged hospital stay ( $\geq 2$  days), when compared to an overweight BMI (p=0.032)

**Conclusion:** BMI did not impact the stone-free, or complication rates of tPNL. Normal BMI was found to be a risk factor for prolonged hospital stay, which may be due to an increase in clinically significant bleeding in this patient population. Tubeless PNL appears to be a safe and effective procedure for the treatment of complex renal calculi, independent of BMI.

# MANAGEMENT OF PENOSCTOAL EXTRAMAMMARY PAGET'S WITH A STAGED, MODIFIED MOHS TECHNIQE

Anant Shukla, BA\*, Matthew T Stringer, DO, Pansy Uberoi, MD\*, Steven J Hudak, MD, George J Kallingal, MD: San Antonio, TX

(Presentation to be made by Matthew Stringer, DO)

**Objectives:** To display a useful oncologic surgical technique that is rarely discussed in the Urologic literature.

**Methods:** The patient presented with penoscotal Extramammary Pagets Disease (EMPD) and was treated with a staged wide local excision using the 'Clock Face Modified Mohs Technique'

Stage 1: A punch biopsy was performed in the center of the lesion as a reference for the pathologist. Punch biopsies were then sent at 30 "minute" increments to demarcate the boundaries of the specimen with 1cm negative frozen margins. The intervening skin was excised, while awaiting margin pathology. Additional punch biopsies and skin excision was performed in areas confirmed or suspicious for margin positivity. A Wound Vac™ device was placed for 1 week while awaiting permanent margin status.

Stage 2: Permanent margins were positive in two non-contiguous regions from Stage 1. Re-resection and successful closure of the defect utilizing a rectus flap was then performed. Final margins were negative with an excellent cosmetic outcome and minimal impairment of functional status.

**Conclusions**: The proposed poster describes a modified mohs technique as an effective tool for the urologist to effectively manage EMPD. Furthermore, the Urologist may find this technique useful in staging and resecting any soft tissue lesion.

# EARLY UROLOGIC SURGERY RESIDENCY TRAINING AND THE VETERAN'S AFFAIRS EXPERIENCE: A HISTORICAL PERSPECTIVE

Capt MaryEllen T Dolat, MD, Nicholas Deebel, BS\*, B. Mayer Grob, MD, Warren W Koontz Jr, MD\*, Adam P Klausner, MD\*: Richmond, Virginia

(Presentation to be made by Dr. Dolat)

**Introduction:** Urologic residency training has thrived at Veteran's Affairs medical centers (VAMC) for decades. In our own region, the Hunter Holmes McGuire (Richmond) VAMC has been responsible for training high-caliber urologists for more than 70 years. Our aim was to review the evolution of urologic surgery residency training at the Richmond VAMC.

Materials and Methods: Urology case logs were reviewed from 1946 -1953 at the Hunter Holmes McGuire Veteran's Affairs Medical Center in Richmond, Virginia. A former chairman of Urology familiar with data and personnel from this time period was interviewed to help with interpretation. Extracted data included operative role (primary surgeon vs assistant), total case number, specific procedure, urologic organ, surgical approach (open vs. endoscopic), and type of anesthesia. Data were recorded in an access database and querries were created for analysis. Categorical data were compared using Fisher's Exact tests with p<0.05 considered statistically significant.

**Results:** Over this 8 year period, a total of 2532 Urologic cases were performed by three Urology attendings and 11 residents. Of these cases, 577 (22.7%) were surgery on the prostate (for obstructive uropathy or prostate cancer) with the overwhelming majority being TURPs (452 or 78.3% of prostate cases). Total cases per year increased from 249 in 1946 to 363 in 1953. Similarly, the number of prostate surgeries increased from 6 per year to 128 per year over the same 8 year time period (p<0.05). Other cases included perineal urethrostomy (2.1%), orchiectomy (unilateral 2.5% and bilateral 1.2%), nephropexy (1.4%) and transurethral resection of bladder tumors (17.8%).

**Conclusion:** During the late 1940s and early 1950s, case volume was less than the number of surgeries performed today. Residents logged cases as 3rd assist, 2nd assist, 1st assist and surgeon. Case volume increased over the 8 year time period examined with the most dramatic increase seen for prostate surgeries (mainly TURPs). The VAMC has been an invaluable part of urologic residency in the mid-20th century and continues to fill the same role today.

#### PANCREATIC ESWL: TECHNIQUES AND OUTCOMES OF OUR CASE SERIES

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**Introduction:** We report our technique and results of case series of 6 patients undergoing pancreatic extracorporeal sock wave lithotripsy (ESWL) in the treatment of impacted pancreatic duct stones. With ESWL losing favor as a treatment for renal calculus we present a safe and alternate use for ESWL.

Material and Methods: We retrospectively reviewed all pancreatic ESWLs performed at our institution. A total of six patients were referred following unsuccessful endoscopic retrograde cholangiopancreatography (ERCP). Patients then underwent ESWL of their calculi. The procedure was performed in similar fashion to renal calculus ESWL. All patients were previously stented by the referring GI surgeon. Patients were positioned supine, under general anesthesia, with preoperation antibiotics given. The stone was localized using fluoroscopy. Lithotripsy was performed ramping from 14-26 kilovolts. A total of 3000 shocks were administered in each case. The patients were discharged with 3-5 days of postoperative antibiotics and pain medication.

**Results:** Average stone density in hounsfield units ranged from 730-1827. Fragmentation occurred in 5 of 6 patients. This was verified via follow up ERCP in 4 of 6 patients. During the ERCP all stone fragments were either absent or easily cleared. One patient did not have a follow-up ERCP; outpatient follow up demonstrated complete resolution of his pain. One patient failed ESWL and required radical pancreatic surgery to remove her stone. There were zero ESWL complications within a three months follow up period.

**Conclusion:** ESWL is safe, easy and effective for the treatment of pancreatic duct calculi not amenable to primary ERCP.

# HEXAMINOLEVULINATE BLUE-LIGHT CYSTOSCOPY IN A PATIENT WITH METASTATIC MELANOMA OF THE BLADDER

Anant Shukla, B.A.\*, Jonathan T. Wingate, M.D., Karen C. Baker, M.D., and Timothy C. Brand, M.D.: Tacoma, WA (Presentation to be made by Anant Shukla)

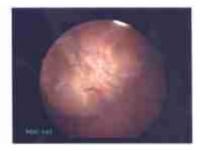
**Introduction:** Although bladder cancer is one of the most frequently diagnosed tumors worldwide, metastatic melanoma to the bladder is a rare occurrence with only 29 cases reported in the literature. Hexaminolevulinate (HAL) with blue-light cystoscopy (BLC) gained Food and Drug Administration (FDA) approval in the U.S. in 2010 for cystoscopic detection for papillary cancer of the bladder in patients with suspected lesions as it significantly improved detection of Ta and T1 urothelial cell cancers of the bladder. To our knowledge, this is the first reported case of HAL-BLC in a patient undergoing transurethral resection of bladder tumor (TURBT) of a bladder melanoma.

Case: FM is a 60 year old Caucasian male with known metastatic melanoma to the pectoral region, thigh, and brain since 2014. In 2015, he presented to Madigan Army Medical Center Urology with 1.5 month history of painless gross hematuria. Cystoscopy demonstrated a 2cm bladder tumor in the left lateral wall of the bladder. TURBT was performed with aid of HAL-BLC. HAL-BLC demonstrated avid fluorescence of the tumor. The tumor was successfully resected and immunohistochemical staining was positive for S-100 and MART-1 which was supportive of a diagnosis of metastatic melanoma to the bladder.

**Conclusions**: Although HAL-BLC is only indicated for use in the cystoscopic detection of non-muscle invasive papillary cancer of the bladder, it may aid in the detection of melanoma and other rare bladder pathologies.

FIGURE 1. Appearance of Bladder Tumor in HAL-BLC versus White Light Cystoscopy.





# MANAGEMENT OF METASTATIC PENOSCROTAL EXTRAMAMMARY PAGET'S DISEASE

Jacxelyn Moran\*, B.S., Anant Shukla B.A., Joseph W Basler, MD, PhD: San Antonio, TX

**Objective:** To present a case demonstrating the non-surgical management of metastatic penoscrotal Extramammary Paget's disease (EMPD).

**Methods:** The patient presented with metastatic penoscrotal EMPD and was treated solely with chemotherapy and radiation regimens.

**Results:** Metastatic EMPD cases are scarcely reported due to the rarity of incidence. This case report presents the treatment approach for an elderly Caucasian man who suffers from persistent penoscrotal EMPD which has metastasized to distant lymphatics and boney areas.

The extent of the disease did not warrant palliative surgical resection or radiation; therefore, chemotherapy with docetaxol (60 mg/m2, q4w) was initiated; however, a follow up PET-CT scan after three docetaxel courses showed a mixed response with regional and distant progression of disease. A switch of chemotherapy regimen to low-dose 5-FU therapy (600 mg/m2,) and cisplatin (5-10 mg/body, was poorly tolerated. A third treatment of carboplatin (AUC of 4 on day 1, repeated every 21 days) and gemcitabine (1000 mg/m2 on day 1 and 8) was initiated. Despite initial improvement and down trending CEA tumor markers, a mixed response was seen after 5 cycles of gemcitabine-carboplatin, with new lesions at the left tibia, neck lymph nodes, and T4 and T7 vertebrae.

Due to the extent of the metastases, palliative radiation to the thoracic spine lumbar spine was completed. He simultaneously initiated palliative chemotherapy with weekly carbo-taxol. Unfortunately, the patient developed acute renal failure (eGFR 8) on chronic kidney disease while receiving palliative chemotherapy. The chemotherapy was terminated and the patient was referred to palliative care. To date, the patient is living and continues follow up.

**Conclusions:** The proposed poster demonstrates a non-surgical approach to grossly metastatic EMPD disease in a patient treated at our institution.

# ABDOMINAL WALL METASTASIS OF RENAL CELL CARCINOMA FOLLOWING PARTIAL NEPHRECTOMY

Katherine Carlisle, M.D., \*Herbert Chinn, M.D.: Honolulu, HI

(Presentation to be made by Dr. Carlisle)

**Objectives:** Metastatic renal cell carcinoma (RCC) of the skin is very rare with less than 100 cases reported in the English literature. Common sites of metastasis of RCC include lung, liver, bone, brain, and the adrenal glands. Incidence of metastasis after partial nephrectomy for localized, sporadic RCC is approximately 5% and generally develops within 5 years.

**Results:** A case report of delayed recurrence with metastasis to the skin and abdominal wall following open partial nephrectomy for T1 RCC is presented. The patient initially presented with incidental finding of a 2.5x1.5cm right renal mass found on ultrasound to evaluate his spleen. Follow up CT scan demonstrated an enhancing mass concerning for RCC and he underwent an open partial nephrectomy. Tissue pathology confirmed RCC and revealed a focal positive margin of tumor at the most dependent portion of the surgical defect that was further excised with a negative margin. He had routine surveillance to include CT imaging at 1 year post operatively without evidence of recurrence. 12 years later he presented with an anterior abdominal wall mass just medial to his surgical scar that was biopsied and found to be metastatic RCC. PET CT demonstrated the abdominal wall lesion and two small pulmonary nodules. MRI of the brain was negative for metastasis. He underwent open excision of the abdominal wall tumor and mesh repair of ventral hernia with negative margins on pathology.

**Conclusion:** Partial nephrectomy is standard of care for management of clinical T1 renal masses in the presence of a normal contralateral kidney with post-operative metastatic recurrence rates around 5%. Renal cell carcinoma can recur with metastasis long outside the 5 year recommended routine surveillance time frame set forth by the National Comprehensive Cancer Network (NCCN). It is important for clinicians to have high suspicion of seemingly unrelated masses as possible RCC recurrence in this patient population.

#### ABDOMINOSCROTAL HYDROCELE: A SYSTEMATIC REVIEW

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(Presentation to be made by Dr. Kehoe)

**Introduction:** Abdominoscrotal hydrocele (ASH) is an uncommon condition characterized by a fluid-filled mass with inguinoscrotal and abdominal components, comprising less than 3% of all pediatric hydroceles. We conducted a review of the literature with special interest in presentation, management and outcomes.

**Materials and Methods:** A search was conducted of the MEDLINE/Pubmed, Embase, Ovid, Web of Science, and Scopus databases for all years available. Exclusion criteria was applied to select for English language, full-text, multi-case, primarily pediatric studies. Two authors independently extracted data and assessed for risk of bias in the remaining with any discordance settled by a third author.

**Results:** We found 18 case series that met selection criteria. These series described 117 patients with 147 hydroceles. All studies were assessed as having a high risk of bias based on study design with significant heterogeneity of reporting and overall quality within those selected, making uniform data extraction and conclusion challenging. On presentation, diagnosis is most often made by palpation with ultrasound a valuable adjunctive tool. Ipsilateral testicular dysmorphism, and contralateral simple hydroceles or bilateral hydroceles often accompany ASH. 26 patients presented with bilateral ASH. Management was always surgical with inguinal approach being the most common. When addressed, the intraoperative finding of a patent processus vaginalis was uncommon. Complications were very poorly reported, but were generally minor with the most common being swelling. Of note, only one recurrence was reported, all approaches included, and resolved after reoperation.

**Conclusions:** ASH is a rare entity of controversial etiology with description limited to small case series in the pediatric literature. Coexisting scrotal and testicular conditions are reported by multiple authors. Although approach varies, consensus calls for surgical management with the universal expectation of no recurrence and few minor complications.

# OVOTESTICUALAR DISORDERS OF SEXUAL DEVELOPMENT: A CASE OF HERNIA UTERI INGUINALIS

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(Presentation to be made by Dr. DeRosa)

**Objectives:** Ovotesticular Disorders of Sexual Development (OT-DSD, previously known as true hermaphroditism) result in the presence of both testis and ovarian tissue and occur in 3-10% of DSD cases. The majority of these cases result from 46XX karyotypes, with fewer involving 46XX/46XY mosaicism. Most commonly, gonadal structures present in the scrotum or inguinal canal are comprised of testis tissue. The presence of uterus and other Mullerian structures in an inguinal hernia sac of a male patient is referred to as hernia uteri inguinalis. This condition has rarely been reported in patients with OT-DSD. We present a patient with rare mosaicism in combination with an unusual location of Mullerian Duct structures within an inguinal hernia sac.

Results: A baby was born at 37 weeks with ambiguous genitalia, and was determined to have high-level chimerism with 53.5% 46XX /46.5% 46XY mosaicisim. Physical exam demonstrated a bifid scrotum, empty left hemiscrotum, a descended gonad in the right hemi-scrotum, and significant chordee with a 2 cm phallus. Genitogram and cystoscopy revealed a rectourethral pouch, likely a blind ending vagina, without other internal structures. Diagnostic laparoscopy revealed no intra-abdominal Mullerian structures, but what appeared to be a vas deferens and spermatic cord entering an open left internal inguinal ring. However, upon left inguinal exploration, abnormal Mullerian gonadal structures were removed. Pathology from the left gonadectomy revealed ovarian, fallopian tube, and uterine tissue in the inguinal canal with no evidence of testicular tissue. Biopsy of the gonad in the right hemiscrotum demonstrated only immature testicular tissue. Ultimately, the parents chose male rearing, and he recently underwent first-stage correction of the perineal hypospadias.

**Conclusion:** OT-DSD can present with wide spectrum phenotypes, including hernia uteri inguinalis. Gonadal biopsy should be considered, despite laparoscopic findings of absent intra-abdominal Mullerian structures. The surgeon should make a thorough effort to locate and identify all gonadal structures, even if this entails multiple gonadal biopsies. Once sex of rearing is determined, a multi-step surgical course can be planned. Goals of surgery include achieving desirable cosmesis, establishing urinary function, preserving any future fertility, and eliminating or decreasing the risk of malignancy. These goals can be accomplished by working closely with a multidisciplinary pediatric team.

# CLINICAL RESEARCH ABSTRACTS

# DISCORDANT VENOUS THROMBOEMBOLISM RATES IN US VS NON-US COUNTRIES FOLLOWING RADICAL CYSTECTOMY: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Inman MD, MSc\*: Durham, North Carolina
(Presentation to be made by Dr. Joseph Fantony)

Context: Post-cystectomy bladder cancer (BCa) patients are at high-risk for developing venous thromboembolism (VTE). The literature varies widely in the reporting of VTEs in this population.

Objective: To determine the VTE rate in subjects undergoing radical cystectomy (RC) and highlight specific factors affecting this rate.

Evidence Acquisition: This meta-analysis was registered with the PROSPERO database, registration number: CRD42015016776. We queried MEDLINE, The Cochrane Library, EMBASE, Scopus, CINAHL, and Web of Science. Search terms captured BCa, RC, and VTE. Per the PRISMA guidelines, abstracts were reviewed for inclusion/exclusion criteria by two reviewers, and disagreements resolved by a third reviewer. A search of the grey literature and references of pertinent articles was also performed. The date of our last search was December 15, 2014. For unreported data, authors were contacted. Data were abstracted in duplicate and pooled using a random effects (RE) model. Subgroup analyses and meta-regression were performed to determine risk factors for VTE.

Evidence Synthesis: We identified 2,927 publications of which 223 met inclusion criteria for this review. A total of 1,115,634 surgeries were performed on an 80% male population, with 51,908 VTEs. The VTE rate estimated by the RE model was 3.7%. The Higgins-Thompson I2 statistic was 97%, indicating that between study heterogeneity was high. Because of this variability subgroup and meta-regression analyses were undertaken. This revealed a higher rate of VTE in US studies at 4.49% compared to "westernized" non-US studies at 3.43 and "non-westernized" non-US based studies at 2.50. Other important modifiers included minimally invasive at 5.54 vs open surgery at 3.55, and age. The case-fatality rate of pulmonary emboli was 44%.

Conclusions: VTE is common in patients undergoing RC. Reporting of VTE is heterogeneous and the rate varies according to study-level factors including: surgery type, and country of origin. Limitations of this study include the preponderance of observational studies in the final analysis and lack of complete reporting of all variables of interest within each study.

# POTENCY PRESERVATION AFTER RADICAL PROSTATECTOMY IN MEN WITH HIGH-RISK FEATURES

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(Presentation to be made by Dr. Ronald J. Caras)

Objectives: Complete excision of all the tumor is the primary goal of Radical Prostatectomy (RP). However, a wider resection can compromise the neurovascular bundles (NVB), and hinder sexual function recovery. We aimed to describe the efficacy of RP to achieve total excision of the primary tumor and preserve sexual function, in a cohort of patients at increased risk for extraprostatic extension in whom the surgical resection margins were tailored based on clinical staging, Gleason score and location of positive biopsies, preoperative MRI, and intraoperative findings.

Methods: In a retrospective review, we identified 584 patients who underwent RP between 2006 and 2012 for prostate cancer with one or more NCCN-defined high risk features (PSA  $\geq$  20ng/mL; clinical stage  $\geq$  T3; preoperative Gleason grade 8-10). Positive surgical margin (PSM) rate and erectile function recovery (defined as IIEF score > 21) were determined in patients that received some degree of NVB sparing. The probability of bilateral NVB resection was estimated based on preoperative characteristics.

Results: Bilateral NVB resection was performed in 12%, while 16% underwent unilateral NVB resection. The remainder had at least some degree of bilateral NVB preservation. Among patients that underwent some degree of NVB preservation, 24% had PSMs and 47% of men with preoperatively functional erections were potent within 2 years. Preoperative features associated with a higher probability of bilateral NVB resection were biopsy primary Gleason grade 5, and clinical stage T3.

Conclusions: High risk features should not be considered per se as an indication for complete NVB resection. Some degree of bilateral NVB sparing can be safely performed in the majority of these patients with an acceptable rate of positive surgical margins with nearly half of preoperatively potent patients recovering erectile function after this procedure.

# INVASIVENESS AND POST AGGRESSION METABOLISM IN DAVINCI PROSTATECTOMIES - THE IPOD STUDY

- A. Martinschek 1, L. Stumm 2, M. Ritter 2, E. Heinrich 3, L. Trojan 3
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- (3) University of Göttingen, Dept. of Urology, Göttingen, Germany

Introduction & Objectives: Robotic-assisted laparoscopic prostatectomy (RALP) is suggested to be less invasive, accompanied with lower surgical stress and faster recovering. The study was performed to evaluate invasiveness and post aggression metabolism using accepted humoral mediators in patients with RALP compared to open surgery oRRP).

Material & Methods: Blood samples were obtained from 40 consecutive patients who underwent either RALP or oRRP at six defined times (before surgery (T1), time of prostatectomy (T2), time of wound closure (T3), 12h postoperative (T4), 24h postoperative (T5) and 48h postoperative (T6)). Serum levels of Interleukin 6 (IL-6), Interleukin 10 (IL-10), C-reactive proteine (CRP), hemoglobine (Hb) and leucocytes (L) were measured and objective perioperative (time of surgery, lenght of wound, intraoperative blood loss) as well as postoperative parameters (length of hospital stay, duration of catheter, transfusion rate, complications according to Clavien-System) were evaluated.

Results: Mean operative time was 191 minutes for RALP and 180 minutes for oRRP (n.s.). Length of was 10.6cm for RALP and 15.1cm for oRRP (p2, according to the Clavien classification system) (1 vs 6 patients; p < 0.001), and transfusion rate (0% vs 20%; p < 0.001). IL-6 levels raised their maximum at the end of surgery (T3), as well as IL-10 (T3-T4), whereas CRP levels raised until T6. RALP patients showed lower IL-6 levels (T2-T6), lower IL-10 levels (T2-T6), lower CRP levels (T6), higher levels of Hb (T2-T6) and comparable levels for leucocytes to patients who underwent oRRP.

Conclusions: Although the study recruited consecutive patients, the findings suggest, that IL-6, IL-10 and CRP are as useful as objective markers of surgical stress and that RALP compares favourably to oRRP concerning invasiveness and post aggression metabolism in our group of patients.

# FACTORS AFFECTING STONE-FREE RATES WITH PRIMARY URETEROSCOPIC TREATMENT OF UPPER TRACT CALCULI

Cornelia J. Willis\*, Benjamin J. King M.D.\*, Peter W. Callas Ph.D.\*, Kevan M. Sternberg M.D.\*: Burlington, Vermont (Presentation to be made by Ms. Cornelia J. Willis)

Introduction: Patient and stone characteristics predicting stone-free rates following definitive stone treatment with ureteroscopy are not well defined.

Materials & Methods: A retrospective review of 137 initial unilateral ureteroscopic procedures performed by a single surgeon for ureteral calculi, renal calculi, or both from October 2012 to December 2014 was performed. Of the 137, 121 were included in the analysis and had preoperative non-contrast CT imaging, kidney stone analysis, and post-procedure imaging. Stones were treated with basket extraction alone or laser lithotripsy with active stone retrieval. Stone-free was defined as fragments ≤2mm mostly using plain film imaging. Factors reviewed included patient demographics, stone volume, stone number, location, density, and stone composition. Stone volume was measured as the largest single-shot surface area on an axial image. Univariate and multivariate analyses were performed.

Results: 77% (n=93) of the cohort was stone-free on follow-up imaging. On univariate analysis, stone volume (p=0.02), number of stones (p=0.03), and presence of lower pole stones (p=0.06) predicted stone-free status. On multivariate logistic regression, only stone volume was significant (p=0.03). Volumes >90mm2 were significantly less likely to be stone-free (OR=3.56, 95% CI=1.08-11.68, p=0.04) when compared to stones with volumes <30mm2. Volumes 60-80mm2 had increased odds of not being stone-free but this was not statistically significant (OR 2.17, 95% CI=0.53-8.93, p=0.28).

Conclusions: In our study population, the only predictor of stone-free status following primary unilateral ureteroscopy was stone volume on preoperative imaging. This will guide treatment recommendations and pre-procedure patient counseling when treating large stone burdens.

# SELECTIVE CALICEAL CATHETERIZATION FOR STONE MANIPULATION..A HISTORICAL REVIEW

Thomas P. Ball, M.D. Maj Gen USAF (ret), Lou Bobroff, M.D., James T. Turlington, M.D. Brig Gen USAF (ret)

Throughout the history of modern Aviation, the presence of any kidney stone or poorly defined calcification in the collecting system required that the Airman (both military and civilian) be grounded. Occasionally Air Force crewmembers would have a small stone, less than 5 mm in diameter. Although asymptomatic, these airmen would be grounded. In 1972, Dr. T.P. Ball, Col USAF MC, began to consider ways to facilitate the treatment of these stones that would preserve renal function. In 1974 the technology was available to accomplish this goal.

This original work was presented at the AUA South Central Section meeting in 1974, and at the AUA meeting in 1975. This clinical research and activity was truly pioneering and paved the way for our modern endourology and the endoscopic treatment of renal stones. This paper is presented with the advice and consent of the primary author, Maj Gen Thomas "Pre" Ball, USAF (ret).

### **SUNDAY ABSTRACT PRESENTATION**

# AN OBJECTIVE EVALUATION OF VIBERECT® (MALE MEDICAL VIBRATOR) IN INDUCING FUNCTIONAL ERECTION IN COMPARISON TO INTRACAVERNOSAL VASOACTIVE INJECTION USING PENILE DUPLEX DOPPLER ULTRASOUND BLOOD FLOW ANALYSIS

Suresh Sikka1, Kambiz Tajkarimi2, Arthur L. Burnett3 and Wayne Hellstrom1 1Department of urology, Tulane University School of Medicine, New Orleans, LA, USA; 2Frederick Urology Specialists, Frederick, MD, USA; 3Brady Buchanan Urological Institute, Johns Hopkins Medical Institutions, Baltimore, MD, USA.

Background: Viberect® is a new FDA-cleared medical vibrator device that stimulates genital afferent nerves and induces penile erection. The degree and quality of penile rigidity induced by Viberect® has variable response and depends upon many factors. An objective evaluation of functionality of such device is needed.

Objective: To compare erection rigidity and penile blood flow induced by Viberect® versus intracavernosal injection (ICI) of a vasoactive agent in patients undergoing color duplex Doppler ultrasound (CDDU) evaluation.

Methods: One hundred five patients with ED with and without Peyronie's disease consented using IRB protocol to receive instructions and correctly use the Viberect® prior to undergoing penile CDDU in our Andrology & sexual dysfunction clinic during 2011-2013. Viberect® stimulation was performed by patients at 70-100 Hz for 6-10 minutes and CDDU performed as per our standard protocol (JSM, 2013). After the penis was fully flaccid, low dose ICI (7-15 mcg prostaglandin-E1, PGE1) was administered and CDDU repeated by the same sonographer under similar environment and visual sexual stimulation (VSS) settings.

Results: Thirty three men (called "positive-responders" to Viberect®) showed >60% rigidity and 55 cm/sec mean peak systolic velocity (PSV) with Viberect® compared to >65% rigidity (p>0.05) and 70 cm/sec mean PSV (2-tailed paired t-test value of p<0.05) with PGE1. Forty five patients (called "borderline-responders") showed 36% mean rigidity and 44cm/sec PSV with Viberect® compared to 58% rigidity and 66cm/sec PSV with PGE1 (p<0.002). Only 15 patients (called "non-responders") showed poor erection response with Viberect® (mean 15% rigidity and 29cm/sec PSV) compared to mean 56% rigidity and 59cm/sec PSV with PGE1 (p<0.001). Twelve patients could not complete Viberect® stimulation due to impending ejaculation. No complaints or adverse events were reported with Viberect®. Thus, Viberect® induced good blood flow and rigid erection response almost similar to ICI in "positive-responders". Many "borderline and negative responders" had significant anxiety and environmental issues using this vibrator in clinical setting.

Conclusions: This study suggests that Viberect® that stimulate bulbocavernosus reflex is very safe, convenient, well-tolerated modality for inducing erection. Vibratory stimulation prior to injection may improve ICI response to vasoactive agent that should reduce the effective prescription dose and thus reducing the cost and incidence of priapism. Randomized prospective multicenter trials using standardized CDDU should be performed to further validate the concept of stimulating bulbocavernosus reflex with such vibrators for ED diagnosis and treatment.



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