Abstract # 01

Diagnostic performance of PSA Density for prostate cancer among African Americans and Caucasians

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Baltimore, Maryland
Presentation: Dr. Shu Wang

Introduction and Objective:
It has been reported that African American men diagnosed with prostate cancer (PCa) produce different amount of PSA compared to Caucasians. This difference may have potential effect on the cutoffs of PSA level we use among these two populations. With a dramatically increased use of MRI in the diagnosis of prostate cancer, an accurate calculation of PSAD before biopsy become possible, which can be used to facilitate PCa diagnosis and risk stratification. In this study, we aimed to evaluate if there is racial difference for the diagnostic performance of PSAD between African American and Caucasian patients undergoing MRI/US fusion targeted biopsy (TB) and systematic biopsy (SB).

Methods:
We retrospectively reviewed African Americans and Caucasians who received MRI/US TB with concurrent SB in our center from 2015 to 2020. Patients with known history of prostate cancer and unknown PSA level and prostate volume were excluded. PSAD was calculated as PSA level/prostate volume obtained from pre-biopsy MRI. The performances of PSAD for both PCa and clinically significant prostate cancer (CSPC, defined as Gleason Score≥7) among both races were evaluated with ROC curve. Different PSAD cutoff (0.15 and 0.10 ng/ml/cc) were also used to for further comparison.

Results:
247 patients were included, with 81 AAs and 166 Caucasians. The mean PSAD was 0.18 in both AAs and Caucasians. Overall cancer detection and CSPC rate were 53.8% (133/247) and 38.9% (96/247). 42% (34/81) of AAs were diagnosed as CSPC vs 37.3% (62/166) of Caucasians (p=0.48). On ROC curves for PCa diagnosis, the AUC was 0.68 for AA vs 0.74 for Caucasians, and for CSPC diagnosis, the AUC was 0.71 for AA vs 0.76 for Caucasians (Figure 1). Since two ROC curves intersected each other, we further tested different PSAD cutoffs to evaluate the performance. When using a PSAD cut-off of ≥0.15, the sensitivity+specificity was 121.9% (55.9%+66.0%) for AAs vs 142.7% (67.7%+75%) for Caucasians. When using PSAD cut-off of ≥0.1, its performance improved among AAs, with the sensitivity+specificity of 134.2% (85.3%+48.9%) for AAs vs 132.3% (87.1%+45.2%) for Caucasians.

Conclusions:
The diagnostic performances of PSAD for PCa and CSPC differ between AAs and Caucasians. Further studies are needed to find the optimal PSAD cut-offs among different races.

Source of Funding: None.

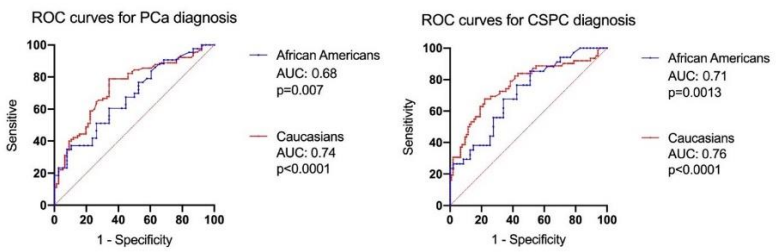

Figure 1. Diagnostic performance of PSAD for any PCa and CSPC among AAs

Abstract # 02

Survival of Nonseminomatous Germ Cell Tumors in Pediatric Patients and Young Adults – A Stage Group Stratified Analysis

Authors: Arnav Srivastava[1, 2], Hiren V. Patel[1, 2], Elizabeth Koehne[3], Gopal N. Gupta[3], Richard Drachtman[4], Phillip M. Pierorazio[5], Aditya Bagrodia[6], Sammy E. Elsamra[1], Isaac Y. Kim[1], Saum Ghodoussipour[1], Eric A. Singer[1], Thomas L. Jang[1], Hiten D. Patel[3], Joseph G. Barone[2]

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Introduction: Testicular germ cell tumors, particularly nonseminomatous germ cell tumors (NSGCT), comprise the most common solid malignancy in male children and younger adults. While these patients often experience excellent survival outcomes, few studies have characterized their survival. Thus, we aimed to characterize the relative survival of NSGCT by age, stratifying patients by stage group.

Methods: Using the Surveillance Epidemiology and End Results (SEER) database, we divided patients with NSGCT into pediatric patients and adolescents (<19 years), young adults (19-30 years), and older adults (>30 years). Survival analysis, using Cox proportional hazards models and Kaplan Meier curves, described overall and cancer-specific survival (CSS) of each age category for Stage I-III NSGCT by stage group.
Results: A total of 14,786 patients met inclusion criteria and comprised the age groups <19 years (N=1,287), 19-30 years (N=7,729), and >30 years (N=5,770). Stage group distribution at presentation was similar between each group. Survival analysis demonstrated no differences in cancer-specific survival (CSS) among Stage I or II NSGCT. However, among Stage III tumors, multivariable models noted worse CSS in patients >30 years (HR=3.55 (95%CI: 1.45-7.73), p=0.005) and a similar trend among those 19-30 years (HR=2.28 (95%CI: 0.99-5.21), p=0.053) compared to pediatric and adolescent patients (Table 1, Figure 1).

Conclusions: Younger NSGCT patients experience excellent oncologic outcomes compared to their older counterparts. These survival differences by age group are largely driven by differential survival among Stage III neoplasms. Furthermore, our report lends additional evidence that age is an important prognostic factor in advanced NSGCT, including pediatric and adolescent patients.

Table 1 - Cancer-specific Survival of NSGCT by Age Category and Stage Group

STAGE I

		Univariable				*Multivariable**			
Variables		**HR**	**95% CI**		**p value**	**HR**	**95% CI**		**p value**
Age	<19	REF	REF	REF	REF	REF	REF	REF	REF
	19-30	1.16	0.62	2.18	0.649	1.55	0.34	7.05	0.57
	>30	1.44	0.76	2.71	0.259	1.49	0.31	7.21	0.619

STAGE II

		Univariable				*Multivariable**			
Variables		**HR**	**95% CI**		**p value**	**HR**	**95% CI**		**p value**
Age	<19	REF	REF	REF	REF	REF	REF	REF	REF
	19-30	1.03	0.49	2.19	0.93	1.42	0.66	3.05	0.37
	>30	1.20	0.56	2.57	0.645	2.03	0.91	4.51	0.082

STAGE III

		Univariable				*Multivariable**			
Variables		**HR**	**95% CI**		**p value**	**HR**	**95% CI**		**p value**
Age	<19	REF	REF	REF	REF	REF	REF	REF	REF
	19-30	1.53	1.01	2.32	0.044	2.28	0.99	5.24	0.052
	>30	2.35	1.55	3.55	<0.001	3.55	1.53	8.23	0.003
IGCCCG Risk Category	Good	REF	REF	REF	REF	REF	REF	REF	REF
	Intermediate	1.92	0.90	4.10	0.091	1.96	0.91	4.22	0.084
	Poor	5.22	2.83	9.63	<0.001	4.92	2.63	9.19	<0.001

*Adjusted for histology, race, insurance status, and lymphovascular invasion; HR = hazard ratio; 95% CI = 95% confidence interval; GCT = germ cell tumor

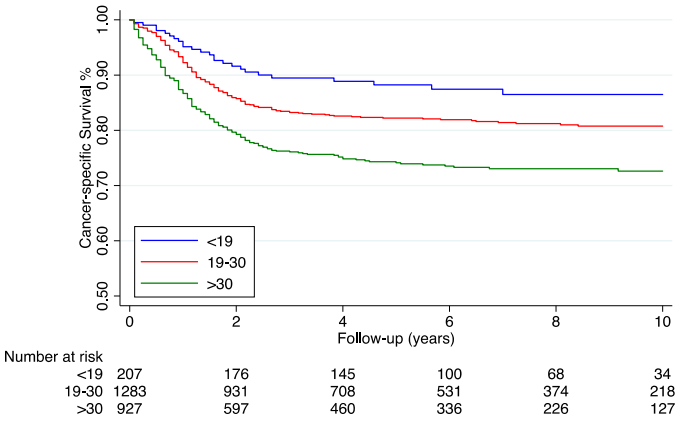

Figure 1: Cancer-specific Survival of Stage III NSGCT by Age

Abstract # 03

Hormone Naïve Versus Hormone Exposed Metastatic Prostate Cancer Outcomes in the SEARCH Database

Claire M. Trustram Eve, Lin Gu MS, Jessica L. Janes MS, Amanda M. de Hoedt MS, Christopher L. Amling MD, William J. Aronson MD, Matthew R. Cooperberg MD, MPH, Christopher J. Kane MD, Lourdes Rivera MD, Martha K. Terris MD, Stephen J. Freedland MD, Zachary Klaassen MD, MS: Durham, NC Presentation to be made by Ms. Claire Trustram Eve

Introduction:
The treatment landscape of metastatic prostate cancer (mPCa) has evolved over the last several years. Less clear is the impact of timing of androgen deprivation therapy (ADT) with regards to metastasis on survival outcomes. We aimed to investigate the incidence of hormone-naïve (HN) mPCa and compare outcomes to men with hormone-exposed (HE) mPCa.

Methods:
mPCa patients (pts) who underwent radical prostatectomy between 2000-2020 at 9 VA hospitals were identified from SEARCH database. The incidence rate of HN and its exact binomial 95% confidence interval (CI) were calculated. Kaplan-Meier method was used to estimate the median survival and 10-year survival rates of time to ADT, castrate-resistant prostate cancer (CRPC), and all-cause mortality (ACM). Multivariable adjusted Cox proportional hazard model was fit to assess the effects of demographics and disease characteristics on the risk of ADT, CRPC, and ACM. Hazard Ratio (HR) and the 95% CI were estimated from the Cox model
.
Results:
Of 275 mPCa men, 112 were HN (41%, 95% CI: 35-47%). The median time to ADT initiation in pts was 0.11 years (95% CI 0.09-0.26), and 10-year survival rate was 13.8% (95% CI 7.4-25.8). The median time to ACM in HN pts was 4.98 years (95% CI 3.45-10.0), and 10-year survival rate was 22.6% (95% CI 10.5-48.7). Ten-year CRPC-free rate was 59.2% (95% CI 48.5-72.2). Compared to HE pts, HN pts were at lower risk for CRPC (HR_{trend} 0.61, 95% CI 0.36-1.01), and lower ACM (HR 0.65, 95% CI 0.44-0.96, p=0.03). HN pts with higher PSA level initiated ADT sooner compared to HN pts with lower PSA (HR_{trend} 1.40, 95% CI 0.99-1.97, p=0.058). HN positive lymph node (LN) pts were at lower risk to develop CRPC than LN negative pts (HR 0.08, 95% CI, 0.01-0.86). High volume HN pts developed CRPC in shorter time than low volume HN pts (HR 9.35, 95% CI, 2.78-31.49). Finally, HN pts who underwent surgery in later years had better overall survival (HR 0.90, 95% CI 0.84-0.97). HN pts with high volume had worse overall survivals than HN low volume pts (HR 7.93, 95% CI 2.83-22.20).

Conclusions:
Among men diagnosed with mPCa, those with prior hormone exposure had worse disease characteristics and a 35% higher likelihood for death. Additionally, men with high volume disease were significantly more at risk than men with low volume disease for developing CRPC and death. With no level 1 data conferring a survival benefit to the utilization of ADT prior to metastasis, these results should be used to counsel pts regarding the risks/benefits of timing of ADT initiation.

Table. Association of hormone exposure status with CRPC and ACM

			Age-adjusted		Multivariable-adjusted*	
Outcome	Hormone Status	# Event/Total	HR (95% CI)	p	HR (95% CI)	p
CRPC	Hormone exposure	42/86	Reference		Reference	
	Hormone naïve	34/112	0.47 (0.30-0.74)	0.001	0.61 (0.36-1.01)	0.053
ACM						
	Hormone exposure	111/163	Reference		Reference	
	Hormone naïve	49/112	0.54 (0.38-0.75)	<.001	0.65 (0.44-0.96)	0.030

*Adjusted factors include age, race, year of surgery, log-transformed preoperative PSA, biopsy grade, clinical stage, margin status, ECE, SVI, lymph node status, pathological grade, adjuvant radiation therapy received prior to metastasis diagnosis, and disease burden
Abbreviation: ACM=all-cause mortality; CI=confidence interval; CRPC= castrate resistant prostate cancer; HR=hazard ratio

Source of Funding: None

Abstract # 04

National Distribution of Prostate Cancer Screening

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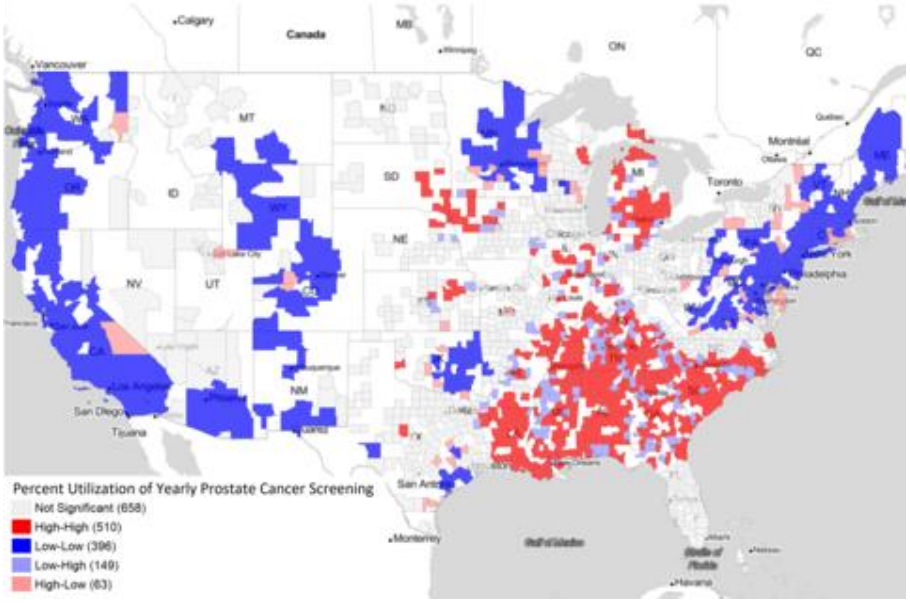
Champaign, Illinois.
Presentation to be made by Ms. Overton.
Source of Funding: None

Routine screening of prostate cancer is controversial. It is recommended that shared decision making between patient and provider be used to weigh the decision to screen. National variance in physician screening patterns as well as their change over time will be assessed by comparing trends in prostate cancer screening and prevalence in the Medicare population. Relevant socioeconomic characteristics and provider specialties will also be assessed.

This work utilized public access databases from the Center for Medicare Services (CMS) and the U.S. Census Bureau for years 2015-2019. Billing codes for prostate cancer screening (G0103, G0102), including prostate specific antigen (PSA) and digital rectal exam (DRE), were tracked along with the ordering physician specialty. Medicare covers a yearly prostate cancer screening in all males over 50 and tracks the percent utilization. This utilization as well as the prevalence of prostate cancer were obtained from CMS preventive service and chronic disease databases. Moran's I analysis was used to identify statistically significant, $p < 0.05$, hotspots (High-High), coldspots (Low-Low), and geospatial outliers (Low-High and High-Low) in prostate cancer screening in 1776 counties. Groupings were compared with ANOVA across 110 CMS and socioeconomic variables.

A total of 6,581,805 prostate cancer screenings were recorded, growing 1.59% per year, with 97.89% being PSA screenings. Internal medicine, family medicine, pathology, and urology represented 45.80%, 35.73%, 3.61%, and 5.56% of the billing provider specialties, respectively. Clusters of high utilization of prostate cancer screenings were in the South, Great Lakes, and Eastern Midwest with an average of 23.71%. Coldspot clusters were in the Northeast, West Coast, Minnesota, and Oklahoma, averaging 12.22% utilization. Compared to coldspots, screening hotspots were statistically significantly, $p < 0.05$, less white (64.39% to 72.14%), more rural (4.52 to 3.32 rural urban continuum code), more likely to be in poverty (17.41% to 12.90%), and less dense (164.57 to 1099.41 people per square mile).

There exist geospatial clusters of prostate cancer screening. Despite equivocal recommendations, screening has increased nationally. Screening hotspots were associated with rural areas and increased rates of poverty.



Abstract # 05

Rates of Penile Fracture in Patient's Treated with Collagenase Clostridium Histolyticum within the Veterans Health Administration.

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Miami, Florida
Presentation Dr. Thomas A. Masterson
Source of Funding: None

Introduction and Objectives
Collagenase Clostridium Histolyticum (CCH) is the only FDA approved medication for the treatment of Peyronie's disease (PD). The most feared complication is penile fracture, and the label advises patients to abstain from sexual activity for 4 weeks after injections. To date there are no studies investigating the incidence of penile fractures in untreated PD and compared them to men who received CCH. We sought to determine the differences in penile fracture rate and risk factors in patients with PD with and without CCH treatment.

Methods
We queried the VA Informatics and Computing Infrastructure, to identify veterans with a diagnosis of PD by ICD-9 (607.85) or ICD-10 (N48.6) code between 2015-2020. We searched medication codes for CCH and ICD-9 (959.13) and ICD-10 (S39.840) codes for penile fracture to determine which patients had fractures. All patients with penile fracture codes were manually reviewed. Only patients with penile fractures post diagnosis of PD were included in the study. A $p<0.05$ was considered significant.

Results
In total, 17,647 veterans were diagnosed with PD with 1,541 (8.7%) treated with CCH. 13 patients had penile fracture after PD diagnosis (0.08%) and did not receive CCH treatment. 5 patients (0.32%) were diagnosed with penile fracture after treatment with CCH. Table 1 shows patient demographic and clinical information for 5 patients with penile fracture post CCH treatment.

Conclusion
There was a significant difference between the rates of penile fracture in patients treated with CCH and those without in PD patients. Sexual intercourse or morning erections were the two most common causes of penile fracture after CCH injection.

Table 1. Clinical Characteristics of Patients with Peyronie's Disease and Penile Fracture at Veterans Hospitals

Number of Patients with PD	17,647
Number of Patients Treated with CCH	1,541
Number of Patients with PD and Penile Fracture	13 (0.08%)
Number of Patients with Penile Fracture after CCH injections	5 (0.32%) *
Median Age	57
Median Initial Angle	41.67°
Median CCH injections	4
Median Days after CCH injection	7
How Fracture Occurred	
Sexual Intercourse	2
Morning Erections	2
Post Injections	1
Treatment	
Penile Exploration and Tunica Repair	3
Conservative	2

* indicates statistically significant difference between each group ($p<0.05$)

Abstract # 06

Systematic Selection of Implementation Strategies for Risk-aligned Bladder Cancer Surveillance

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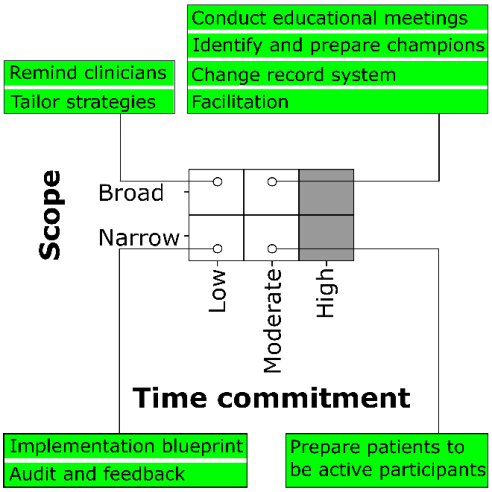
White River Junction, VT; Indianapolis, IN, Birmingham, AL
Presentation: Dr. Schroeck.

Source of Funding: VA HSR&D Merit Grant I01HX002780

Introduction and Objective:
Guidelines for surveillance of patients with non-muscle invasive bladder cancer recommend aligning surveillance frequency with underlying cancer risk. We previously found that risk-aligned surveillance is not commonly provided in the VA. Thus, there is a need to develop strategies to improve risk-aligned surveillance. Historically, such strategies were often based on what "seemed like a good idea at the time." Here, we describe a systematic approach to the selection of strategies to implement risk-aligned bladder cancer surveillance in the VA.

Methods:
We developed objectives based on previously collected qualitative data from the VA, organized by Tailored Implementation for Chronic Diseases framework determinants, i.e., what needs to be changed to achieve more risk-aligned surveillance. Next, we evaluated 73 implementation strategies, excluding those that were not applicable to our clinical setting. The remaining strategies were mapped to the objectives using data visualization techniques. Finally, we selected strategies with high impact, based on (1) broad scope, defined as a strategy addressing more than the median number of objectives, (2) requiring low or moderate time commitment from clinical teams, and (3) evidence of effectiveness from the literature.

Results:
We identified 63 unique objectives. Of the 73 implementation strategies, 45 were excluded because they were not applicable to our clinical setting (e.g., not feasible within the confines of the setting, not appropriate for the context). Thus, 28 strategies were mapped to the 63 objectives. Strategies addressed 0 to 26 objectives (median 10.5). Of the 28 strategies, 10 required low and 8 moderate time commitments from clinical teams. We selected 9 strategies based on high impact (Figure), each with a clearly documented rationale for selection.



Conclusions:
We used a rigorous systematic approach to select implementation strategies for risk-aligned bladder cancer surveillance. This was driven by qualitative data from the VA informing objectives, by an implementation science framework, and by a selection process to pick strategies that have the highest possible impact. These strategies are currently being tested at four VA

Abstract # 07

Long-term Outcomes of Penile Prosthesis in a VA Practice

Grant M. Van der Voort MD, Anessa N. Sax-Bolder*, Alan M. Makedon*, Gary K. Shahinyan*, Mark D. Sawyer MD, Simon P. Kim MD MPH*, Granville L. Lloyd MD*A*

Presentation to be made by Dr. Van der Voort.
Source of Funding: None.

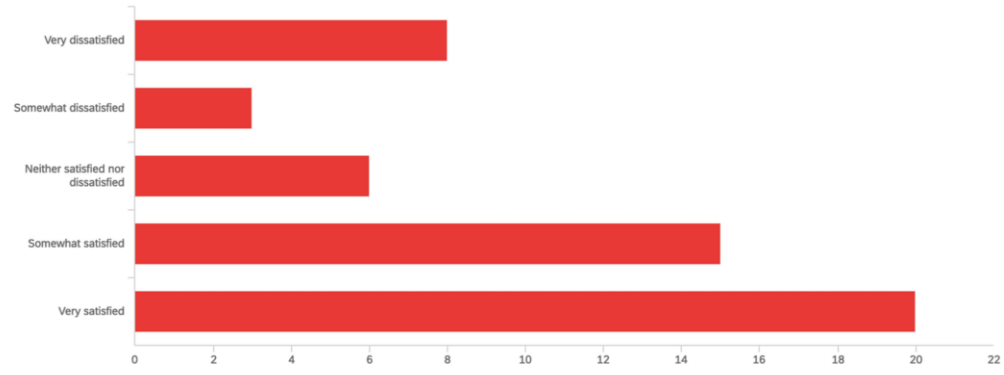
Introduction and Objective:
Inflatable penile prostheses have shown favorable and successful short-term results for men with refractory erectile dysfunction, but few studies have evaluated the long-term outcomes, including in a VA population. This study aims to evaluate the outcomes and satisfaction rates of penile prosthesis surgery using the novel validated survey, the Satisfaction Survey for Inflatable Penile Implant (SSIPI), at a single-center VA long-term practice.

Methods:
Retrospective chart reviews were completed at a single Veterans Affairs Hospital as a Quality Improvement project. Patients who underwent a primary inflatable penile prosthesis implantation from 1993-2021 were included. Demographics, surgical management, complications and outcomes were collected. The SSIPI was administered to men who could be reached.

Results:
115 men were included. Of those, 83 were alive and 32 were deceased. Of the living, we were able to contact 52/83 (63%) to administer the SSIPI. In this cohort, mean age at time of surgery was 62.6 years old and mean follow up time was 78.2 mos (range: 5-234 mos). Average total SSIPI scores were 64.5/80 (range 26-80). Men generally reported high satisfaction (Figure 1) and lower regret scores although there was a broad distribution. 40/115 (35%) men had complications, and 26/115 (23%) of men underwent revision surgery. Complications included device failure (26/40), infection (6/40), erosion (1/40), and severe pain (7/40). 32/52 (62%) reported implant functionality, 12/52 (23%) device in place but non-functional, 3/52 (5.7%) had it removed, and 5/52 (9.6%) had it removed and replaced. Of men who have died, the average time from implantation to death was 125.9 mos (range: 4-314 mos).

Conclusions:
We report long term follow-up of inflatable penile prosthesis in a veteran population. While many men report excellent outcomes, a significant number of these men score poorly on the newly-validated SSIPI and/or have complications. The utility of this novel assessment instrument appears excellent. Long term outcomes in penile prosthesis appear promising for most men, but opportunities for improvement exist.

Figure 1: Overall satisfaction



Abstract # 08

MRI-US Fusion Cryotherapy for Men with Localized Intermediate Risk Prostate Cancer Oncologic and Functional Outcomes

Meredith B Meyer*, Yusef Saeed*, Fernando Blank*, Koffi Wima*, Juliana Tobler*, Sadhna Verma*, Abhinav Sidana

Cincinnati, Ohio
Presentation to be made by Dr. Abhinav Sidana"

Introduction and Objective:
Focal prostate cryoablation using an MRI-US Fusion technique can precisely target areas of clinically significant cancer, theoretically providing adequate cancer control while minimizing treatment impact on genitourinary function. Here, we evaluate functional and oncologic outcomes after focal cryotherapy using a previously described novel MRI-US fusion technique to treat men with intermediate risk prostate cancer.

Methods:
This is a retrospective cohort study analyzing functional and oncologic outcomes of 34 men with intermediate risk prostate cancer who underwent MRI-US fusion guided focal cryotherapy at our center from 2018-2021. Men with localized and histologically proven intermediate risk prostate cancer were offered focal therapy. Patients were followed every 3 months for the first 12 months then every 6 months thereafter with PSA testing and functional assessments. At 6 months, repeat prostate MRI followed by a protocol MRI-US fusion biopsy for the ablated area or new lesions along with a 12-core systematic biopsy was performed. Only "for cause" prostate biopsies were subsequently performed for patients with a negative 6-month biopsy.

Results:
Thirty-four patients with a median follow-up of 27 months were included in the analysis. Median preoperative age and PSA were 64 and 5.99 respectively. Most had Grade Group 2 prostate cancer (67%). Median operative time was 89 minutes with 91% undergoing a single lesion cryoablation. No grade 3 or 4 complications were seen. Median percent change in PSA at 3-, 6-, and 12-months post ablation were -68%, -62%, and -50%, respectively. Biochemical, imaging, and biopsy failure criteria were met in 29.4%, 20.6%, and 20.6% of the patients during the study period. Median change in SHIM and AUA score at 3-, 6-, and 12-months were –2, 0, and –1, and –2, -2, and –3, respectively.

Table 1: Demographics, preoperative variables, and oncological and functional outcomes

Median age, years (IQR)	64 (60, 71)		
Race, n (%)			
Caucasian	23 (67.65)		
African American	9 (26.47)		
Asian	1 (2.94)		
Other	1 (2.94)		
Median Preop PSA, ng/ml (IQR)	5.99 (4, 9.4)		
Median MRI Prostate Volume, ml (IQR)	44.4 (33, 56)		
# MRI Lesions, n(%)			
1	19 (55.88)		
2	10 (29.41)		
3	5 (14.71)		
Highest MRI PIRADS, n (%)			
3	2 (5.88)		
4	14 (41.18)		
5	16 (47.06)		
NA	2 (5.88)		
Median Positive Cores Preop, # (IQR)	3 (2, 4)		
Preop Gleason, n (%)			
3+4	23 (67.65)		
4+3	11 (32.35)		
Median Preop SHIM, # (IQR)	15 (10-22)		
Median Preop AUA, # (IQR)	9 (7, 11)		
Median Operative Time, minutes (IQR)	89 (78, 105)		
Median Time to Catheter Removal, Days (IQR)	3 (3, 3)		
Number of Lesions Ablated, n (%)			
1	31 (91.18)		
>1	3 (8.82)		
Post-Operative Complications, n (%)			
Urinary Retention	3 (8.82)		
UTI	1 (2.94)		
Gross Hematuria with Clots	2 (5.88)		
Median % Change in PSA, % (IQR)	**3 Months**	**6 Months**	**12 Months**
	-68 (-89, -48)	-62 (-85, -37)	-50 (-65, -31)
Biochemical Failure, n (%)	10 (29.41)		
Median Time to Biochemical Failure, mo (95%)	26 (9, 30)		
Imaging Failure, n (%)	7 (20.59)		
Median Time to Imaging Failure, mo (95% CI)	26 (9, 30)		
Biopsy Failure, n (%)	7 (20.59)		
In-Field	1 (14.29)		
Out-of-Field	5 (71.43)		
Both	1 (14.29)		
Median Time to Biopsy Failure, months (95% CI)	26 (20, 30)		
Median Change in AUA Score, # (IQR)	**3 Months**	**6 Months**	**12 Months**
	-2 (-4, 1)	-2 (-5, 1)	-3 (-7, -1)
Median Change in SHIM Score, #(IQR)	-2 (-9.5, 1.5)	0 (-8, 1)	-1 (-9, 0)

Conclusions:
The MRI-US technique for focal therapy shows promising oncologic with preservation of genitourinary function. Multi-institutional studies with longer term data are needed to further characterize this treatment option.

Source of Funding: None

Abstract # 09

Robotic and Microscopic Vasectomy Reversal Experience at a Veterans Affairs Hospital

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Houston, TX
Michael E Debakey VA Medical Center,
Presentation: Dr. Robert Brunner

Introduction and Objective
Many veterans desire vasectomy reversal yet this service is not offered at most VA medical centers. We began performing vasectomy reversals in 2013 at our medical center using available surgical microscopes or the DaVinci Robotic System. The objective of our study was to assess the outcomes of robotic-assisted vasectomy reversal and demonstrate feasibility for the expansion of men's health services at other VA centers.

Methods
From 2013 until 2021 we retrospectively reviewed our database of vasectomy reversals to include assessment of perioperative prognostic factors including time after vasectomy, intraoperative semen quality and postoperative vasal patency.

Results
63 vasectomy reversals were attempted at our center. 11% were completed unilaterally, 84% bilaterally, and 4.7% were aborted. The open microscopic approach was used in 51 patients and 7 underwent a robotic approach. Average age at surgery was 37 years and median time after vasectomy was 6 years. Postoperative semen analyses were available in 3 of 7 men undergoing robotic reversal and 29 of 51 in the microscopic reversal. All patients with semen analyses undergoing robotic reversal demonstrated motile sperm in the ejaculate. 75.8% (22/29) of patients undergoing traditional microscopic reversal demonstrated motile sperm.

Conclusions
Patients undergoing vasectomy reversal at our VA medical center had excellent outcomes that are consistent with those reported in the literature. Our program demonstrates the potential to expand much-needed andrology services in the veteran community. The successful utilization of the DaVinci robot provides an opportunity to expand such services at centers without a surgical microscope or with insufficient microscopic surgical experience.

Source of funding: None

Abstract # 10

Single Port vs. Xi Robot-Assisted Laparoscopic Posterior Urethroplasty

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Presentation: Dr. Wen Liu

Introduction and Objective:
To describe our comparative experience treating posterior urethral stenosis with the da Vinci Single Port (SP) vs. Xi platform.

Methods:
We retrospectively compared 3 patients who underwent Xi robot-assisted laparoscopic posterior urethroplasty (Xi-RALPU) vs. 4 patients who underwent SP-RALPU by a single surgeon from July 2018–June 2019. Variables included patient demographics, diagnosis, etiology, and intraoperative considerations. The SP-RALPU starts with single port placement with a 1-inch supraumbilical midline incision. Dissection proceeds via extraperitoneal transvesical approach behind the prostate to the pelvic floor, often with concurrent perineal approach and use of near-infrared laparoscopy and cystoscopy to identify the level of the urethral stenosis. The stenotic segment is excised and anastomosis completed with ancillary maneuvers, such as buccal mucosal grafts, rectus abdominis flap and omental flap harvests, in most cases due to complex urologic histories.

Results:
The mean age between groups did not differ (66.7 vs. 64 years) (range 49–77). Posterior urethroplasty was performed for vesicourethral anastomotic strictures (VUAS) (n=6) and idiopathic bulbar urethral stricture (n=1). Aesthetically, the SP robot is unquestionably superior as the patient is left with a single 1-inch midline incision vs. a minimum of 5 port site incisions with the Xi robot. For the perineal surgeon, the configuration of the Xi robotic arms often causes robotic arm and pelvic side wall clashing. With the SP robot, visualization and precise suturing is improved with the double articulating arms. The average time for anastomosis completion was 46.7 minutes vs. 68.2 minutes for Xi and SP, respectively (p = 0.37). The mean number of needle adjustments per minute during the anastomosis was 0.63 vs. 0.21 for Xi and SP-RALPU, respectively (p = 0.0074). Additionally, with the extraperitoneal approach of the SP robot, the risk of bowel injury, incisional hernia, and need for lysis of adhesions is significantly lower. Disadvantages of the SP robot include the learning curve, which can be inherent to all new technologies or techniques; cost, which merits further analysis; as well as cumbersome instrument swapping and potentially less effective bedside assistance.

Conclusions:
SP-RALPU provides an advantageous approach to posterior urethroplasty compared to Xi-RALPU through improved visualization and ergonomics in the deep pelvis and better cosmesis. Moreover, the extraperitoneal approach may allow for safer outcomes for patients.

Funding: None

Abstract # 11

Active Surveillance for Intermediate Risk Patients in a Majority African American Veterans Cohort

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Presentation to be made by Mr. Pincus

Introduction and Objective:
Active surveillance (AS) is the preferred treatment for patients with very low (VL) and low (L) risk prostate cancer (PCa). In patients with favorable intermediate (FI) risk disease, there is still debate regarding safety of surveillance. We hypothesized that in a predominantly African American cohort of patients, AS for FI risk PCa is safe and effective.

Methods:
All patients on AS at the Southeast Louisiana Veterans Health Care System (SLVHCS) are entered into a prospectively maintained IRB approved database for disease management. All patients from this cohort were queried and then patients were stratified based on National Comprehensive Cancer Network (NCCN) risk classification. Mann-Whitney U and Fisher exact tests were used to compare demographics. All tests were two-sided using a significance of 0.05.

Results:
264 consecutive patients were included in the study (Table 1). PSA and PSA density were significantly higher in the FI group, while prostate volume was higher in the VL group. There was no significant difference in Gleason-upgrading-free survival between FI and VL groups (p=.245) or FI and L groups (p=.523); there was a significant difference between the VL and L groups (p=.014) (Figure 1). No patients experienced metastatic disease.

Conclusions:
Patients with FI risk PCa are not at increased risk for Gleason-upgrading compared to L or VL risk PCa. It is likely that AS for FI risk PCa is comparable in safety and efficacy to AS for L risk PCa, though larger studies with longer follow-up are needed. Importantly, our conclusions are particularly applicable to African American men, who represented the majority of our cohort.

Funding: None.

Demographics at PCa Dx (IQR)	Very Low	Low	Intermediate	P value
Number (%)	81 (31%)	139 (53%)	44 (17%)	—
Race	—	—	—	—
• AA	52 (20%)	96 (36%)	20 (7.6%)	—
• Non-AA	29 (11%)	43 (16%)	11 (4.2%)	0.73
Median Age	66 (62 – 69)	64 (60 - 68)	66 (62.8 – 69.3)	0.06
Median BMI	29.6 (25.9 -32.4)	27.5 (24.5 – 31.5)	29.4 (25.8 – 32.8)	0.10
Median Bx PSA (ng/ml)	5.05 (4.24 – 5.72)	5.81 (4.84 – 7.04)	10.7 (6.12 – 11.7)	<0.0001
Median PSA density	0.09 (0.07 – 0.12)	0.18 (0.15 – 0.24)	0.18 (0.11 – 0.29)	<0.0001
Median Prostate Volume TRUS	53.9 (42.9 – 66.1)	32.5 (25.4 – 43.4)	41.1 (34.5 – 61.5)	<0.0001
Median # of positive cores	1 (1 – 2)	2 (1 – 3)	1 (1 – 2.5)	<0.0005
Gleason Upgraded	30 (37%)	70 (50%)	10 (23%)	—
Received Treatment	28 (35%)	66 (47%)	12 (27%)	—

Table 1 – Demographics: Race, Age, and BMI were collected at time of diagnosis. PSA, PSA density, prostate volume, and number of positive cores were collected at time of repeat biopsy.

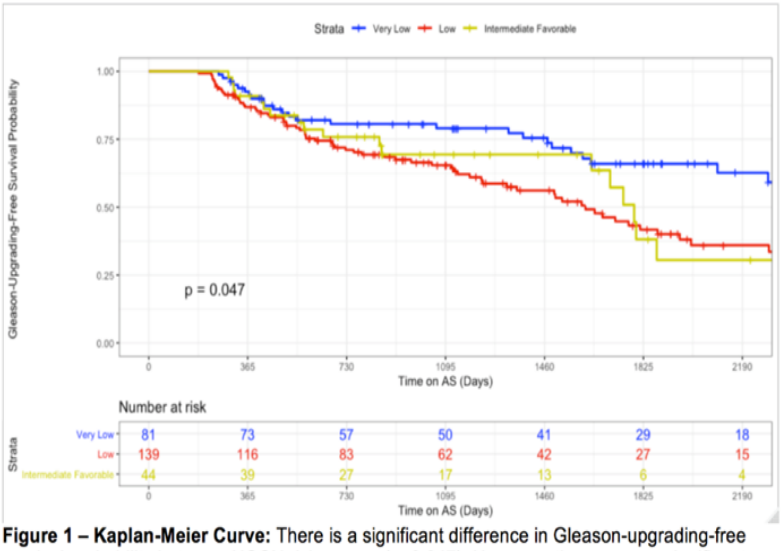

Figure 1 – Kaplan-Meier Curve: There is a significant difference in Gleason-upgrading-free survival probability between NCCN risk groups (p=0.047). However, there was no significant difference between FI and either VL or L groups (p=.245,.523, respectively).

Abstract # 12

Age is not a predictive factor to oncologic outcomes in patients aged greater than 70

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Charleston, SC,
Presentation to be made by Dr Jenna Winebaum

Introduction:
The average age of patients diagnosed with prostate cancer is 66. Standard of care includes surgery, and radiation, and active surveillance, however, historically surgical management has been prioritized to younger patients. In part this trend is due to diminished functional outcomes demonstrated in older patients, as well as the belief that patients greater than 70 years of age do not achieve equivalent oncologic outcomes with surgical management of prostate cancer. Prior studies have indicated an association between pathologic upgrading and older age, which could potentially portend worse oncologic outcomes in this group. Our aim is to examine oncologic outcomes in patients greater than the age of 70 who undergo radical prostatectomy, including stratification based on race.

Methods/Materials:
We performed a retrospective analysis of the oncologic outcomes of 643 patients, including 68 patients over 70 years of age, that underwent radical prostatectomy at a single institution between 2009-2018. We stratified patients based into five-year age groups as well as a group of patients over 70. We additionally stratified patients based on race, and found 215/643 (33%) patients in the cohort to be black, including 12/68 (17%) over the age of 70. We compared rates of recurrence and overall survival between age strata by performing a univariate and multivariate Cox regression analysis. We also evaluated rates of positive surgical margins as well as upgrading and upstaging on final pathology using chi-square testing.

Results:
On both multivariate and univariate analysis, there was no significant difference between the age strata when looking at overall survival and biochemical recurrence rates. There was no difference in rates of positive surgical margins. When subgroup analysis was performed for race, we again did not find a significant difference between groups. The only significant predictor for difference in overall survival and recurrence in this cohort was pre-operative AUA risk strata. There was no significant difference between age strata in rates of positive surgical margins, upgrading or upstaging on final pathology.

Conclusion:
We did not find that age was a predictive factor in overall survival or oncologic outcomes in patients undergoing radical prostatectomy for prostate cancer, including when stratified for race. With the aging population and the average age of diagnosis of prostate cancer at 66 years old, this suggests that surgical management of prostate cancer is a viable option in a large portion of the patient population that were not routinely offered this management option.

Abstract # 13

Changing Demographics and Characteristics of Statin Users in a Radical Prostatectomy Cohort

Justin Daniel Waller, MS, Lin Gu, MS, Amanda M. De Hoedt, MS, Christopher L. Amling, MD, William J. Aronson, MD, Matthew R. Cooperberg, MD, MPH, Zachary Klaassen, MD, MS, Martha K. Terris, MD, Christopher J. Kane, MD, Lourdes G. Rivera, MD, Stephen J. Freedland, MD, Emma H. Allott, PhD. Durham, NC.

Introduction and Background: Shifting National Cholesterol Education Program (NCEP) Adult Treatment Panel (ATP) guidelines have resulted in larger proportions of statin use in the general population but patterns of use among prostate cancer (PCa) patients is unknown. The Shared Equal Access Regional Cancer Hospital (SEARCH) database is comprised of PCa patients undergoing radical prostatectomy (RP) across nine Veterans Affairs (VA) hospitals and presents a unique cohort by which to assess changing statin use prevalence in PCa patients.

Methods: Of 7,779 patients who underwent RP in SEARCH hospitals between 1999 and 2020, 3,478 (45%) used statins in the year prior to RP. Log binomial regression models were used to calculate prevalence ratios (PR) for statin use across time periods corresponding to changing NCEP ATP guidelines, overall and stratified by patient demographics. Years 1999-2001 served as the reference, and models were adjusted for age, race, obesity, smoking status, and Charlson comorbidity index [CCI].

Results: From 1999-2001 to 2019-2020, statin use prevalence among men undergoing RP in SEARCH increased two-fold. Relative to 1999-2001, prevalence of statin use in 2019-2020 showed the largest increase among youngest (<55; PR 2.95) and oldest (70+; PR 3.75) men at diagnosis. A greater increase in prevalence of use in Black men (PR 3.05) also occurred over this time, relative to White men (PR 1.86). Increases in prevalence were more pronounced in normal weight (PR 2.24) relative to obese men (PR 1.71). Statin use increased among those with no cardiovascular disease (CVD)-related comorbidities (PR 2.32), but not among patients with CVD comorbidities (PR 0.83). In 1999-2001, statin users had a mean age at diagnosis of 62; 18% were Black; 33% overweight or obese; 27% had Gleason ≥7 disease. By 2019-2020, mean age at diagnosis was 66; 40% were Black; 43% overweight or obese, and 39% had Gleason ≥7 disease.

Conclusions: Over the last two decades, statin use increased two-fold in prostate cancer patients undergoing RP within the VA, roughly in line with the general US population. The largest increases in statin use prevalence were noted in Black men, those under 55 or over 70 at diagnosis, and in normal weight men with no comorbidities. Interestingly, the average statin user in 2019-2020 has more aggressive prostate cancer than did his counterpart 20 years ago. Studies examining the association between statin use and prostate cancer-specific outcomes should consider the changing demographic and clinical profiles of statin users over time.

SOURCE OF FUNDING

None

Abstract # 14

Comparison of Dietary Sensitivities Between Veterans with Interstitial Cystitis/Bladder Pain Syndrome and Other Pelvic Pain Disorders

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Durham, North Carolina
Presentation: Ms. Aubrey K. Jarman

INTRODUCTION AND OBJECTIVE:
Prior studies suggest that certain foods exacerbate interstitial cystitis/bladder pain syndrome (IC/BPS) symptoms. However, these studies were limited to small cohorts of predominantly white women at a single center. We sought to validate prior work and determine the presence of diet sensitivities in a heterogeneous population of IC patients across the US and examine differences between those diagnosed with IC (IC), those diagnosed with other pelvic pain conditions often confused with IC (IC-Like), and healthy controls (HC) to determine any potential clinical relevance.

METHODS:
We identified Veterans Affairs patients nationwide by querying ICD-9/10 codes. Patients were assigned to IC/BPS (n=266), IC-Like (non-bladder pelvic pain such as chronic prostatitis, vulvodynia, etc; n=68), or Healthy Control (HC; n=91) cohorts after chart review. We contacted patients by mail and phone and obtained written consent. We mailed all patients the Shorter-Moldwin Food Sensitivity Questionnaire (SMQ) to evaluate the self-perceived effects of specific foods/beverages on urinary symptoms and/or bladder pain. Differences in bladder sensitivity among cohorts were evaluated with chi-square tests for categorical variables and Kruskal- Wallis tests for continuous variables. P<0.05 defined significance.

Table 1: Food Sensitivity Outcomes Stratified by Cohort

	IC/BPS Cohort (N=266)	Other Pelvic Pain Cohort (N=68)	Healthy Control (N=91)	p value
Reported that certain foods and/or beverages worsen bladder symptoms				<0.001[1]
No	41 (15%)	27 (40%)	37 (41%)	
Yes	160 (60%)	16 (24%)	19 (21%)	
Unknown/Missing	65 (24%)	25 (37%)	35 (38%)	
If foods do worsen bladder symptoms, they:				
Make Urine Frequency…				<0.001[1]
Worse	122 (46%)	12 (18%)	15 (16%)	
No change	32 (12%)	4 (6%)	2 (2%)	
Not applicable	112 (42%)	52 (76%)	74 (81%)	
Make Urine Urgency…				<0.001[1]
Worse	107 (40%)	9 (13%)	9 (10%)	
No change	47 (18%)	7 (10%)	5 (5%)	
Not applicable	112 (42%)	52 (76%)	77 (85%)	
Make Bladder Pain…				<0.001[1]
Worse	120 (45%)	3 (4%)	3 (3%)	
No change	33 (12%)	7 (10%)	8 (9%)	
Not applicable	113 (42%)	58 (85%)	80 (88%)	
Eats foods, beverages, or supplements that they know will increase symptoms				<0.001[1]
Daily	27 (10%)	4 (6%)	8 (9%)	
Weekly	42 (16%)	4 (6%)	5 (5%)	
Monthly	25 (9%)	0 (0%)	2 (2%)	
Less than once a month	53 (20%)	5 (7%)	3 (3%)	
Never	39 (15%)	21 (31%)	24 (26%)	
Unknown/missing	80 (30%)	34 (50%)	49 (54%)	
Has modified diet because of media reports about foods worsening bladder symptoms				<0.001[1]
Yes	146 (55%)	9 (13%)	11 (12%)	
Has at least one food sensitivity				<0.001[1]
Yes	185 (70%)	25 (37%)	29 (32%)	
Number of sensitivities				<0.001[2]
Mean (SD)	7.2 (8.1)	1.9 (3.3)	2.1 (4.2)	
Median	5.0	0.0	0.0	
Q1, Q3	0.0, 12.0	0.0, 3.0	0.0, 2.0	
Sensitive to:				
Acidic food (fruits and juices)	110 (41%)	7 (10%)	8 (9%)	<0.001[1]
Spicy food or ethnic food	94 (35%)	6 (9%)	6 (7%)	<0.001[1]
Alcohol	103 (39%)	12 (18%)	18 (20%)	<0.001[1]
Beef, tuna, or chicken	15 (6%)	0 (0%)	2 (2%)	0.065[1]
Caffeinated beverages	143 (54%)	19 (28%)	25 (27%)	<0.001[1]
Non-caffeinated beverages	94 (35%)	11 (16%)	19 (21%)	0.001[1]
Artificial sweeteners	22 (8%)	1 (1%)	3 (3%)	0.051[1]
Digestive aids/supplements	7 (3%)	0 (0%)	2 (2%)	0.404[1]

[1]Chi-Square [2]Kruskal Wallis

RESULTS:
In the IC/BPS cohort, 70% had ≥1 food sensitivity vs. 37% of the IC-Like cohort and 32% of HC (p<.001; Table 1). The average number of sensitives were similar between IC-like (1.9) and HC (2.1), which were significantly less than in IC/BPS patients (7.2). IC/BPS patients were more sensitive to acidic and spicy foods and beverages (regardless of caffeine or alcohol content) vs. other cohorts (all p<.001).

CONCLUSIONS:
In a diverse population of veterans nationwide, IC/BPS patients had significantly more food sensitivities than those without IC/BPS. Importantly, across black and white men and women, the majority of IC/BPS patients reported having at least one food sensitivity, compared to HC and those with IC-Like conditions. These outcomes suggest that food sensitives could be indicative of IC/BPS, which could make the SMQ a helpful diagnostic tool and aid in distinguishing IC/BPS from conditions often confused with IC/BPS.

Source of Funding: Center for Disease Control: 5U01DP006079

Abstract # 15

Exploring Racial Differences in Administration of Neoadjuvant Chemotherapy Prior to Radical Cystectomy

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Presentation to be made by Dr. Connor

Introduction and Objective:
Cisplatin-based neoadjuvant chemotherapy (NAC) therapy has been shown to improve survival outcomes in patients with muscle invasive bladder cancer (MIBC) who undergo radical cystectomy (RC), however, the many contraindications to cisplatin, including chronic kidney disease (CKD) limit its use. Although African-American (AA) men are less likely to develop bladder cancer, they experience higher mortality. We sought to assess whether rates of NAC administration differed based on demographic characteristics, namely race, and to assess if intrinsic characteristics of patient populations such as rates of CKD preclude the use of NAC.

Methods:
We performed an Institutional review board approved retrospective cohort study of all cystectomies including partial, radical, and simple performed at a single institution from 2000-2018. Inclusion criteria included age >18 years and attempt at cystectomy. Variables of interest included patient characteristics, surgical indications, intraoperative complications, post-operative course as well as previous systemic or intravesical therapies. For the purpose of this analysis, we included those patients who underwent RC for the indication of bladder cancer. Chi square analysis was utilized to assess differences between white and AA patients.

Results
At time of analysis, our database included 324 RCs performed for bladder cancer. There were 277 white patients and 45 AA patients. AA patients had a higher rate of CKD compared to white patients (20% to 4.7%). However, there was no difference in the rate of NAC administration (26.7% and 26.0% in AA and white patients, respectively) (p=0.92).

Conclusions:
Rates of NAC administration in our retrospective study were not influenced by race despite AA patients having a significantly higher rate of CKD. The rate of NAC given to patients at this institution appear to be higher than in previous studies of NAC in patients undergoing RC for bladder cancer. Further study is needed to determine if the similar rates of NAC utilization will result in similar pathologic and survival outcomes.

Source of Funding: none

Neoadjuvant Chemotherapy and CKD status by Race (for Radical Cystectomies for Bladder Cancer only) (N=324)

	White (N=277)	African American (N=45)	P value ($\chi 2$)
History of CKD (n, %)?			<0.05
Yes	13 (4.7)	9 (20.0)	
No	264 (95.3)	36 (80.0)	
Received Neoadjuvant chemotherapy (n, %)			0.92
Yes	72 (26.0)	12 (26.7)	
No	205 (74.0)	33 (73.3)	

Abstract # 16

Measurement of Long-Term Diet Adherence Following A Randomized Controlled Trial of a 6-Month Low-Carbohydrate Intervention on Disease Progression in Men with Recurrent Prostate Cancer

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Durham, North Carolina
Presentation to be made by Ms. Aubrey K. Jarman

INTRODUCTION AND OBJECTIVE:
We previously completed a 6-month randomized trial of ≤20g carbohydrates/day low carbohydrate diet (LCD) intervention vs. control (no diet change) in men with a rising PSA after failed surgery or radiation (Carbohydrate and Prostate Study 2 (CAPS2)). We found that adherence to LCD was good, men lost significant weight, and exploratory analysis suggested slowing of PSA doubling time (PSADT). The purpose of this follow-up study was to determine if participants assigned to the LCD intervention maintained the LCD and/or weight loss that occurred during the 6-month intervention period.

METHODS:
All participants (N=45) who completed the original CAPS2 6-month intervention were invited to participate in this follow-up study. The research dietitian conducted all study measures. Long term diet adherence was examined as absolute or percentage change from baseline to follow-up time.

RESULTS:
Of the 45 participants who completed the original CAPS2 trial, 17 (5 control, 12 LCD) participants agreed to participate in this follow up study and their data were analyzed. The median time from study end to follow-up was 37.1 and 37.3 months for the control and LCD groups, respectively. The median carbohydrate intake for the LCD group at follow up was slightly lower than that of the control group (145g vs 186g) though this was not significant (p=0.8). Using the Wilcoxon rank sum exact test, there were no significant differences in caloric, macronutrient intake, weight or BMI between groups at follow-up (all p≥0.2).

CONCLUSIONS:
Considering the various potential health benefits that consuming an LCD may have for patients with PC, more effective strategies are needed to ensure long term behavior change and improved diet adherence.
Source of Funding: NCI K24 CA160653 and the Hartford Foundation and the Samuel Oschin Comprehensive Cancer Institute, Cedars-Sinai Medical Center.

Table 1: Characteristics at Follow-up

Characteristic	Control, N = 5[1]	LCD, N = 12[1]	p-value[2]
Calories (Kcals)	1,683 (1,632, 1,834)	1,716 (1,153, 1,985)	0.9
Carbohydrates (g)	186 (144, 201)	145 (88, 247)	0.8
Fat (g)	64 (60, 70)	62 (40, 95)	0.6
Protein (g)	77 (55, 131)	87 (64, 97)	>0.9
Weight (lbs)	212 (182, 238)	177 (164, 190)	0.2
BMI (kg/m2)	28.9 (28.8, 32.2)	27.2 (25.6, 29.0)	0.4
Follow-up time from end of study (mo)	37.1 (35.7, 39.8)	37.3 (34.2, 39.8)	>0.9

[1]Median (IQR)

[2]Wilcoxon rank sum exact test; Wilcoxon rank sum test

Abstract # 17

Obesity and prostate cancer outcomes in smokers and nonsmokers following radical prostatectomy: Results from the SEARCH Cohort

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Presentation to be made by Ms. Liu

INTRODUCTION AND OBJECTIVE:
We previously reported that obesity and smoking status at radical prostatectomy (RP) were associated with poor prostate cancer (PC) outcomes. Since smoking is known to increase the risk of chronic diseases that result in weight loss, we hypothesized that smoking may also modify the association between obesity and PC progression in men undergoing RP. We studied the relation between body mass index (BMI) status and biochemical recurrence (BCR), metastasis, castrate resistant-PC (CRPC), PC-specific mortality (PCSM), and all-cause mortality (ACM) and examined if smoking status modified these associations.

METHODS:
We analyzed data from the SEARCH Cohort of men undergoing RP between 1990 and 2020. Age and multivariable-adjusted hazard ratios (HRs) and 95% confidence intervals (CIs) were estimated in Cox regression models for associations between BMI as a continuous variable and BMI classifications (normal: 18.5-<25; overweight: 25-29.9 kg/m^2 and obese: ≥30 kg/m^2) and BCR, CRPC, metastasis, PCSM and ACM. Competing risk analyses were carried out for PCSM. Interactions between BMI and smoking status (nonsmoker, current and former) at time of RP were evaluated and tested for statistical significance in fully adjusted models (adj-HR). In addition, we examined smoking status stratum-specific BMI and PC outcome associations.

RESULTS:
Among 6241 men, 1326 (21%) were normal weight, 2756 (44%) overweight and 2159 (35%) obese; 1841 (30%) were non-smokers, 2768 (44%) former and 1632 (26%) were current smokers. At a median follow-up of 10.5 years, there were 2197 BCR, 200 CRPC, 312 metastases, 126 PCSM and 1542 ACM events. Among all men, the HR was elevated for obesity and PCSM, adj-HR=1.71; 0.98-2.98, P=0.057, while overweight and obesity were inversely associated with ACM, adj-HR=0.75; 0.66-0.84, P<0.001 and adj-HR=0.86; 0.75-0.99, P=0.033, respectively. Interactions between BMI and smoking status were statistically significant (P<0.1) for BCR and ACM. Amongst current smokers, overweight was associated with an increase in BCR risk (adj-HR=1.30; 1.07-1.60, P=0.011) and a decrease in ACM (adj-HR=0.70; 0.58-0.84, P<0.001). Amongst nonsmokers BMI (continuous) was associated with an increase in ACM (adj-HR=1.03; 1.00-1.06, P=0.033).

CONCLUSIONS:
While these results are consistent with previous studies showing that obesity is associated with increased risk of PC outcomes, we also found evidence that smoking status may modify the associations between obesity status and BCR and ACM.

Source of Funding: None.

Abstract # 18

Oncologic outcomes of surgical management for high-risk prostate cancer results from a statewide collaborative.

Kyle Johnson, MD*, Ji Qi. MS*, Stephanie Ferrante, BS*, Ann Arbor, MI, Kevin Ginsburg, MD*, Detroit, MI, Joshua M. Kuperus, MS1*, Brian R. Lane, MD, PhD, Grand Rapids, MI, Arvin George, MD, Ann Arbor, MI, Alice Semerjian, MD*, Ypsilanti, MI, for the Michigan Urological Surgery Improvement Collaborative, Ann Arbor, MI

Presentation to be made by Mr. Joshua M. Kuperus

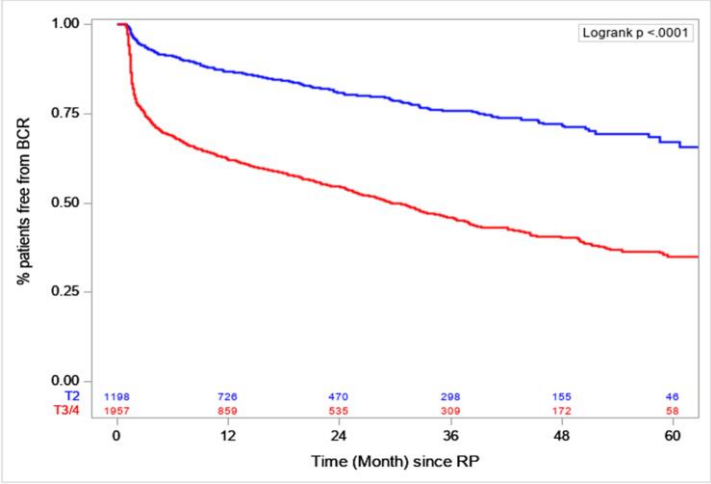
INTRODUCTION AND OBJECTIVE:
Guidelines state that in high-risk prostate cancer (HRPCa) patients with localized disease can be managed with radical prostatectomy (RP), or radiation therapy as initial treatment options per the NCCN guidelines. Definitive evidence does not exist to recommend one treatment modality over the other. We examined the variation in HRPCa treatment and oncologic outcomes within the Michigan Urological Surgery Improvement Collaborative (MUSIC).

METHODS:
We collected data for patients with HRPCa at MUSIC practices between 2/2012-3/2021. Data abstractors recorded clinical, pathologic, surgical, and follow up data into the registry for HRPCa patients. HRPCa was defined as PSA > 20, Gleason grade group 4 (GG4) or above, and/or clinical stage greater than or equal to cT3a with cancer spreading outside the prostate on at least one side.

RESULTS:
Within MUSIC, 7,142 patients were diagnosed with HRPCa at 40 practices and 289 urologists. Rate of RP varied across practices from 0% to 83%. At the time of surgery, only 38% of patients had organ confined disease. 42% of patients had positive margins after RP for HRPCa. 48% of patients had biochemical failure by 48 months post-RP with a significant increase in the first 6 months; 23% patients experienced BCR during this period. Rates of BCR at two years after RP were 19% for HRPCa patients with pT2 disease and 45% for pT3/T4 disease.

CONCLUSIONS:
HRPCa patients have a higher rate of extra-prostatic disease on final pathology, higher positive margin rate, and are more likely to require secondary treatments after RP. This information has important implications for pre-operative counseling, intra-operative decision making, and post-operative follow-up.

Source of Funding:
funding from Blue Cross Blue Shield of Michigan and the Betz Family Endowment for Cancer Research



Abstract # 19

Predictors of Gleason-Upgrading and Treatment in Patients on Active Surveillance

Joshua Pincus, Jacob W. Greenberg, Christopher Koller, MD; Sydney Caputo, Crystal Casado, Caleb Natale, MD; Jonathan Silberstein, MD; L. Spencer Krane, MD, New Orleans, LA; Presentation to be made by Mr. Pincus.

Introduction and Objective:
Active surveillance (AS) is widely accepted for very-low (VL) and low (L) risk prostate cancer (PCa), while controversial for intermediate (IN) risk PCa. The goal of AS is to prevent over-treatment while monitoring for upgrading with a strict protocol. Better predictors are needed to help patients and physicians navigate the decision to start AS.

Methods:
All patients on AS at the Southeast Louisiana Veterans Health Care System are entered into a prospectively kept database for review. Patients were divided into groups based on NCCN risk classification. Mann-Whitney U and Fisher exact tests were used to compare demographics. Multivariable logistic regression was used to analyze predictors for Gleason upgrading (GU) and treatment. All tests were two-sided using a significance of 0.05.

Results:
264 patients were included in the study (Table 1). PSA and PSA density were significantly higher in the IN group, while prostate volume was higher in the VL group. There was no significant difference in GU-free survival between VL and L groups, nor in patients with PSA >10 (Figure 1). Smoking status, BMI, race, age at diagnosis, PSA at diagnosis were not predictive factors for GU or treatment (Table 2). Family history may be predictive of treatment but failed to reach significance (p=0.053). Prior negative biopsies before diagnosis were predictive for GU on AS (p=0.02). Increased prostate volume was protective against GU (p=0.038). Number of positive cores at diagnosis was associated with both GU and treatment.

Conclusions: Increased prostate volume and decreased number of positive cores are protective factors against GU for patients on AS. NCCN risk classification and PSA were not predictive of GU or treatment.

Funding: None

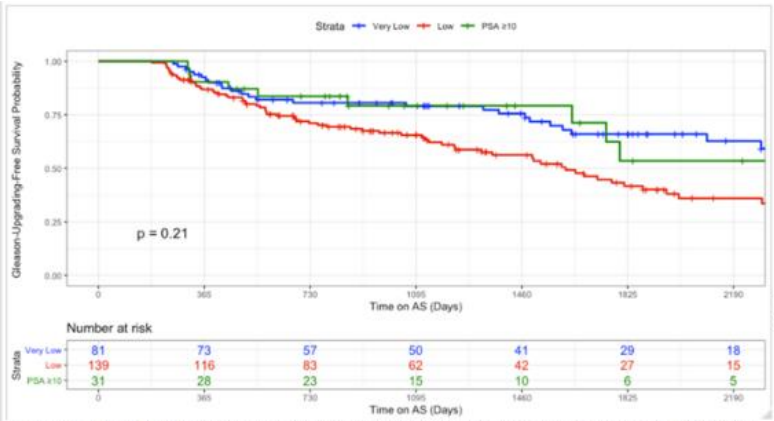


Figure 1 – Kaplan-Meier Curve: There is no significant difference in Gleason-upgrading-free survival probability between NCCN risk groups.

Logit MVA	Gleason Upgrading OR (95% CI)	P value	Treatment OR (95% CI)	P value
Family History of PCa	1.25 (0.63 – 5.50)	0.51	1.91 (0.99 – 3.71)	0.053
Smoking Status	—	—	—	—
- Never	Referent	—	Referent	—
- Current/Former	0.78 (0.44 – 1.38)	0.40	1.11 (0.64 – 1.94)	0.72
BMI	1.00 (0.95 – 1.05)	0.98	1.04 (0.99 – 1.09)	0.15
Race	—	—	—	—
- CA	Referent	—	Referent	—
- AA	1.31 (0.73 – 2.36)	0.37	1.57 (0.89 - 2.81)	0.12
Age at PCa Dx	1.02 (0.97 – 1.06)	0.45	1.00 (0.96 – 1.04)	0.85
Number of Prior Neg Bx	1.61 (1.10 – 2.48)	0.02	1.10 (0.78 – 1.57)	0.59
TRUS Volume at PCa Dx	0.98 (0.97 – 0.99)	0.038	0.99 (0.97 – 1.00)	0.07
PSA at PCa Dx	0.98 (0.90 – 1.07)	0.72	1.00 (0.92 – 1.10)	0.92
Gleason Grade at Dx	—	—	—	—
- 3+3	Referent	—	Referent	—
- 3+4	0.75 (0.27 – 1.58)	0.52	0.99 (0.49 – 2.03)	0.97
Number of Positive cores at Dx	1.78 (1.41 – 2.32)	<0.0001	1.36 (1.11 – 1.69)	0.004

Table 2 – Multivariable Analysis: Predictors of Gleason upgrading and Treatment in patients on active surveillance.

Abstract # 20

Racial and Gender Differences in Food Sensitivities in a Cohort of Veterans with Interstitial Cystitis/Bladder Pain Syndrome

Aubrey K Jarman, RD*, Jessica L Janes, MS*, Amanda M De Hoedt, MS*, Barbara Shorter, PhD, RD*, Robert M Moldwin, MD*, Kamil E Barbour, PhD, MPH, MS*, Stephen J Freedland, MD, Jennifer T Anger, MD*: Durham, North Carolina
Presentation to be made by Ms. Aubrey K. Jarman

INTRODUCTION AND OBJECTIVE: Prior studies have shown that certain foods exacerbate interstitial cystitis/bladder pain syndrome (IC/BPS) symptoms. However, these studies were limited to small cohorts of predominantly Caucasian women at a single center. We sought to validate prior work and determine diet sensitivities in a heterogeneous population of men and women with IC/BPS across the US and examine differences by race and gender.

METHODS: We identified Veterans Affairs patients nationwide by querying ICD-9/10 codes. Patients were assigned to IC/BPS (n=266), IC-Like (non-bladder pelvic pain such as prostatitis, vulvodynia, etc; n=68), or Healthy Control (HC; n=91) cohorts after chart review. We contacted patients by mail and phone and obtained written consent. We mailed all patients the Shorter-Moldwin Food Sensitivity Questionnaire (SMQ) to evaluate the self-perceived effects of specific foods/beverages on urinary symptoms and/or bladder pain. Differences in bladder sensitivity among cohorts were evaluated with chi-square for categorical variables and Kruskal- Wallis for continuous variables. P<0.05 defined significance.

Table 1: Food Sensitivity Outcomes for Patients with IC Stratified by Race

	Black (N=49)	White (N=210)	p value
Reported that certain foods and/or beverages worsen bladder symptoms			0.263[1]
No	4 (8%)	37 (18%)	
Yes	32 (65%)	122 (58%)	
Unknown/Missing	13 (27%)	51 (24%)	
If foods do worsen bladder symptoms, they:			
Make Urine Frequency…			0.272[1]
Worse	27 (55%)	89 (42%)	
No change	5 (10%)	27 (13%)	
Not applicable	17 (35%)	94 (45%)	
Make Urine Urgency…			0.009[1]
Worse	28 (57%)	73 (35%)	
No change	4 (8%)	43 (20%)	
Not applicable	17 (35%)	94 (45%)	
Make Bladder Pain…			0.307[1]
Worse	20 (41%)	96 (46%)	
No change	9 (18%)	22 (10%)	
Not applicable	20 (41%)	92 (44%)	
Has modified diet because of media reports about foods worsening bladder symptoms			0.259[1]
No	16 (33%)	95 (45%)	
Yes	32 (65%)	110 (52%)	
Unknown/missing	1 (2%)	5 (2%)	
Has at least one food sensitivity			0.310[1]
No	12 (24%)	67 (32%)	
Yes	37 (76%)	143 (68%)	
Number of sensitivities			0.402[2]
Mean (SD)	7.8 (8.0)	7.0 (8.0)	
Median	6.0	5.0	
Q1, Q3	1.0, 12.0	0.0, 12.0	
Sensitive to:			
Acidic food (fruits and juices)	20 (41%)	86 (41%)	0.986[1]
Spicy food or ethnic food	15 (31%)	75 (36%)	0.499[1]
Alcohol	25 (51%)	75 (36%)	0.048[1]
Beef, tuna, or chicken	3 (6%)	12 (6%)	0.912[1]
Caffeinated beverages	29 (59%)	110 (52%)	0.390[1]
Non-caffeinated beverages	24 (49%)	67 (32%)	0.024[1]
Artificial sweeteners	6 (12%)	15 (7%)	0.239[1]
Digestive aids/supplements	2 (4%)	5 (2%)	0.509[1]

[1]Chi-Square [2]Kruskal Wallis
Note: 7 patients were excluded from this analysis who had an unknown race

RESULTS: In the IC/BPS cohort (49 black and 210 whites; 7 excluded), black patients had slightly higher presence and number of food sensitivities with 76% of blacks reporting =1 food sensitivity v. 68% of whites and blacks reporting a mean of 7.8 total sensitivities v. 7.0 reported in whites, though these differences were not significant (p>0.05). However, there was a significant difference in worsened urinary urgency among race with 57% blacks reporting certain foods exacerbate urgency as compared to 35% whites (p<0.05). Blacks also reported significantly greater sensitivity to alcohol and non-caffeinated beverages compared to whites (p<0.05). There was no significant difference in the presence or number of food sensitivities by gender, with 67% of men and 73% of women reporting =1 food sensitivity, and men reporting a mean of 7.2 total sensitivities v. 7.4 reported in females (p>0.05).

CONCLUSIONS: We found that the majority of both men and women with IC/BPS had food-related symptom exacerbation, adding to the literature. Despite our low number of black patients, we did identify a significant increase in food-related bladder symptom exacerbation within this population that should be explored further.

Source of Funding: Center for Disease Control: 5U01DP006079

Abstract # 21

Statin and Aspirin Use Prior to Prostatectomy is Associated with Decreased Pretreatment Prostate-Specific Antigen Velocity at Prostatectomy

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Presentation: Mr. Jonathan B. Hill

Statins and aspirin remain two of the most commonly prescribed and taken medications in the United States and are common on medication lists for older adults and American veterans. Some research has suggested that statin and aspirin use can lower baseline PSA values. Their effects on prostate-specific antigen (PSA) dynamics has not been thoroughly investigated. We sought to determine if statin and aspirin use prior to prostatectomy had any effect on PSA levels and PSA velocity (PSAV) in our veteran cohort.

The cohort included 376 patients that received care at single veterans affairs medical center (VAMC) between 1995 - 2013. Patient statin use was assessed through prescription data in the Joint Longitudinal Viewer system. A total of 81 and 88 patients were found to be taking aspirin and statins respectively prior to their radical prostatectomy. Aspirin use ranged from 4 to 114 with a mean of 36 months while statin use ranged from 6 to 125 with a mean of 52 months. PSAV was calculated using the Memorial Sloan Kettering PSA Dynamics Calculator if the patient had at least 2 PSA values with a mean of 5.32 PSA values.

There were no significant differences between the aspirin and statin users and non-users in regard to race or age at the time of surgery. Patients taking aspirin had a mean PSAV of -1.151 ng/ml/yr which was significantly lower than those not take aspirin(*P*=.022) while patients taking statin had a mean PSAV of -0.862 ng/ml/yr which was significantly lower than non-statin users(*P*=.029). Patients taking both aspirin and a statin had a mean PSAV of -2.629 ng/ml/yr which was significantly lower than prostate cancer patients taking neither of the drugs(*P*=.020). The effect sizes as measure by Cohen's D values were all significant at .288, .267, and .375 for aspirin, statin, and aspirin+statin users respectively. No association was found between aspirin or statin users in regards to their PSA immediately prior to prostatectomy.

In our single institution cohort, patients taking aspirin or statins showed significantly lower PSAV but no difference in their PSA value immediately prior to prostatectomy. The effect on PSAV was additive as patients taking both aspirin and a statin had lower average PSAV compared to those taking only an aspirin or statin alone. Because of the prevalent use of aspirin and statins among the general population and American veterans, it is important that urologists consider the effect these drugs can have on a patient's PSAV both during screening for prostate cancer and when using PSAV to make treatment decisions.

Table 1. *Associations Between PSAV and PSA Prior to Prostatectomy for Aspirin and Statin Users Compared to Those Not Taking Statins or Aspirin as Calculated with Independent T-Tests. Cohen's D Values Estimate Effect Sizes. Reference PSAV and PreTx PSA Values are Provided for Patients that were Taking Neither Aspirin or Statins.*

Medication Group	# Patients	Mean PSAV (ng/ml/year)	T-Value	Cohen's D	*P*-Value
Aspirin vs. Non-Aspirin	81	-1.151	2.296	0.288	.022*
Statin vs. Non-Statin	88	-0.862	2.189	0.267	.029*
Aspirin+Statin vs. Neither	46	-2.629	2.343	0.375	.020*
Neither Aspirin or Statin Reference Values	254	2.952	-	-	-
Medication Group	# Patients	Mean PreTx PSA (ng/ml)	T-Value	Cohen's D	*P*-Value
Aspirin vs. Non-Aspirin	81	9.233	0.939	0.118	0.399
Statin vs. Non-Statin	88	9.318	0.918	0.112	0.359
Aspirin+Statin vs. Neither	46	11.033	0.094	0.015	0.925
Neither Aspirin or Statin Reference Values	254	11.242	-	-	-

Abbreviations: PSA, Prostate-Specific Antigen: PSAV, Prostate-Specific Antigen Velocity: PreTx, Pretreatment
*Significant Association

Abstract # 22

Substantial Radiologist-level Variation of Fusion Biopsy Outcomes in a State-wide Quality Improvement Collaborative

Daniel A. Triner MD PhD, Chen-Yu Wu MD*, Ji Qi MS*, Anna Johnson BS*, Prasad Shankar MD*, Alice Semerjian MD*, John M. DiBianco MD*, Brian Lane MD PhD*, Adam Walker MD*, Kevin Ginsburg MD*, Leena Mammen MD*, Kiran Nandalur MD*, Raheel John DO*, David Miller MD*, Arvin K. George MB Bch Bao: Ann Arbor MI

Presentation: Dr. Daniel A. Triner

Introduction and Objective:
Compared to conventional cross-sectional imaging, there is limited experience in prostate MRI interpretation amongst radiologists due its recent integration into the prostate cancer (PCa) diagnostic pathway. Outcomes of prostate fusion biopsy (FBx) can be impacted by MRI protocol, radiologist, urologist and procedural variables. We aimed to define real-world radiologist-level variation in FBx outcomes within the Michigan Urologic Surgical Improvement Collaborative (MUSIC).

Methods:
The MUSIC MRI/FBx registry collects patient demographic and clinical information, MRI/ lesion data and practice characteristics. Radiologists with ≥10 lesions reported in practices performing ≥50 FBx from 8/2017 to 2/2021 were included. The primary outcome was upgrading to high grade (≥GG2) by systematic biopsy (SB). Secondary outcomes were high grade cancer detection rate (HG CDR) in targets, and HGCDR by PIRADS score. Mixed-effects logistic regression models were used to assess radiologist variation in outcomes, adjusting for patient and practice characteristics.

Results:
2995 patients undergoing MRI by 64 radiologists from 13 practices with subsequent FBx were included. Variation in upgrading to ≥GG2 PCa by systematic biopsy ranged from 0-30%. There was significant variation in HG CDR for PIRADS 3 (0-62%), PIRADS 4 (0-54%), and PIRADS 5 (14-85%) lesions (all $p<0.001$) (Fig.1). On multivariable analysis adjusting for age, race, PSA, family history, DRE, prior biopsy, and number of cores obtained, significant practice-level variation was observed for lesion-specific HG CDR ($p<0.05$) but not upgrading by systematic biopsy ($p=0.19$). Radiologist and practice MRI volume were not significant outcome predictors.

Conclusion:
There is substantial radiologist variation in FBx outcomes. Determinants of variation are complex and multifactorial. Strategies to minimize variation may include targeted education and radiology/pathology correlation for feedback on MR findings.

Source of Funding: Blue Cross Blue Shield of Michigan

Abstract # 23

The Impact of Change in PSA Doubling Time Among Patients with Nonmetastatic Castration Resistant Prostate Cancer

Joshua A. Parrish* BS, Jessica L. Janes* MS, Amanda M. De Hoedt* MS, Christopher L. Amling* MD, William J. Aronson* MD, Matthew R. Cooperberg* MD MPH, Christopher J. Kane* MD, Martha K. Terris* MD, Stephen J. Freedland MD, Christopher Wallis* MD and Zachary Klaassen* MD, MSc: Durham, North Carolina

Presentation: Mr. Joshua A. Parrish

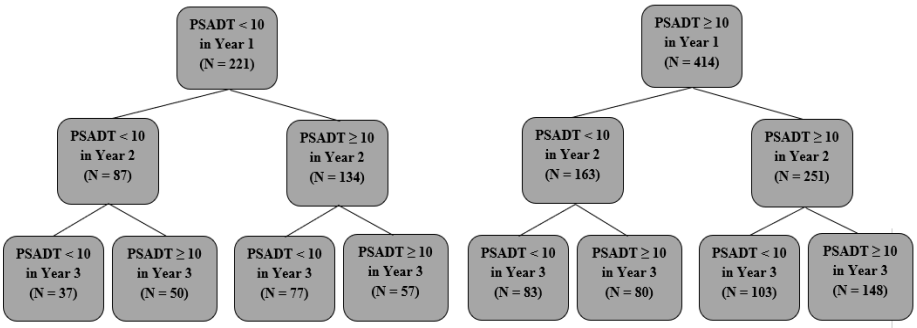
Introduction and Objective:
Among men with non-metastatic castrate resistant prostate cancer (nmCRPC), a shorter PSA doubling time (PSADT) predicts a greater risk of prostate cancer specific mortality (PCSM). Whether PSADT stays consistent over time is unknown. We aimed to assess change in PSADT following nmCRPC and evaluate factors that lead to a PSADT < 10 months.

Methods:
Among 1,676 patients diagnosed with nmCRPC from 2000-2016, 635 had adequate PSA data to calculate PSADT in each of the first 3 years post-nmCRPC. PSADT was calculated using all PSA values separated by 90+ days within each 12-month block, with a minimum of 2 PSA values required. Annual change in PSADT was assessed with Wilcoxon-signed rank tests. Overall PSADT was calculated across all PSA values post-nmCRPC. Multivariable logistic regression was used to assess factors that predict overall PSADT > 10 months. Predictors included PSADT change observed across the first 3 years (consistent accelerator, consistent decelerator, no consistent change), age, race, PSA, BMI, primary therapy, center, biopsy grade group, and time from ADT to nmCRPC.

Results:
No significant difference in PSADT emerged between years 1 and 2 (p=0.381), but significant PSDAT acceleration occurred between years 2 and 3 (p<0.001). Across the first 3 years, 17% consistently accelerated (had shorter PSADTs in year 2 vs 1 and in year 3 vs 2), 8% consistently decelerated, and 75% had no consistent change. In multivariable analysis, those who accelerated consistently in the first 3 years were significantly more likely to reach an overall PSADT < 10 months than those with no consistent change [OR (95% CI) = 3.81 (2.42, 6.00)], whereas those who consistently decelerated were less likely [OR (95% CI) = 0.81 (0.40, 1.66)]. When dichotomizing PSADT for each of the 3 years, 6% had a PSADT < 10 months in all 3 years, 23% had a PSADT $\geq$ 10 months in all 3 years, and 71% had a change in PSADT status occur at some point in years 1-3 after nmCRPC (Figure).

Conclusions:
PSADT in the nmCRPC setting does not appear to change consistently over time. However, men that have a consistently accelerating PSADT in years 2 and 3 during nmCRPC were more likely to reach an overall PSADT of < 10 months. Given these findings, we cannot sufficiently assess patient risk at baseline PSADT and must regularly reassess to inform treatment decisions.

Funding: N/A



Abstract # 24

The Rise and Fall of the Thoracoabdominal Incision In Urological Oncology

Samuel R. Donnenfeld, MD, Christopher P. Filson, MD*, Viraj A. Master, MD, PhD*

Atlanta, GA USA
Presentation: Dr. Samuel R. Donnenfeld, MD

Introduction and Objective:
The thoracoabdominal incision, once a cornerstone of urological oncology, is fleeting. This work lays out a complete history and thorough primary literature review of the origins of this unique surgical approach. This includes its adoption by military physicians both in the Second World War (WWII) and Korean War, and subsequent refinement by urologic oncologist surgeons in the latter half of the twentieth century for both the veteran and civilian populations.

Methods:
This research includes primary source material along with an interview with a highly-regarded urologic oncologist (Dr. Donald Skinner) as well as survey results from active urologic oncologists in contemporary practice. We reviewed documents from the Second Auxiliary Surgical Group during WWII as well as the surgical writings of military surgeons such as Dr. Donald Forbes Marshall who can be recognized as performing the incision for the first genitourinary indication during the same conflict. We also reviewed the records of the 8055$^{th.}$ Army Unit in Korea who can be credited with perfecting the incision's battlefield usage.

Results:
While the incision can originally be traced back to French civilian usage in the latter 19th century, it was not until its adoption for battlefield trauma by Allied Physicians in the Second World War and later the Korean War that the incision became safe and effective. Trauma indications during these conflicts allowed for later adoption in the field of urologic oncology due to the incision's excellent exposure.

Conclusions:
The thoracoabdominal incision's later adoption by the civilian population is a testament to the ingenuity and resourcefulness of military surgeons in the former part of the twentieth century during two major military conflicts. Their contributions should not be forgotten as urological surgery moves towards an ever more minimally invasive approach.

Source of Funding: None

Abstract # 25

Treatment Trends of Peyronie's Disease at the Veteran's Hospital between 2015- 2019

Isaac J. Zucker, MS* and Thomas A. Masterson, MD: Miami, Florida

Presentation: Dr. Thomas A. Masterson
Source of Funding: None

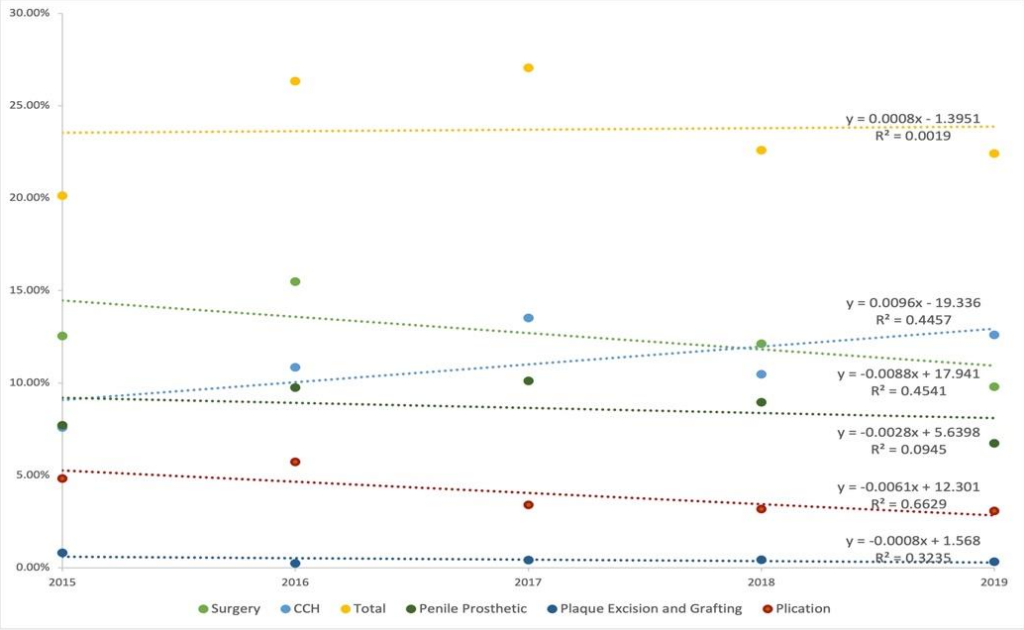
Introduction and Objectives
In 2014, Collagenase clostridium histolyticum (CCH) became the only FDA approved medical treatment for Peyronie's Disease (PD) offering patients an alternative to surgery. CCH, penile plication and plaque excision and grafting are recommended to correct curvature in men with PD and good erectile function, whereas penile prosthesis is recommended for men with PD and poor erections. We hypothesized that CCH would decrease the number of patients electing for surgery. Using the veterans' health administration (VHA), where decision-making is not limited by costs, we aimed to examine the treatment trends for Peyronie's Disease between 2015 and 2019.

Methods
We queried the VA Informatics and Computing Infrastructure, to identify veterans with a diagnosis of PD by ICD-9 or ICD-10 code between 2015-2019. Due to the coronavirus pandemic, 2020 was excluded as Veterans Hospital was closed for several months. We searched medication codes for CCH and surgical CPT codes to determine which patients had the following procedures PD: plaque injection (CPT 54200), penile prosthesis (54400, 54405), penile reconstruction to correct penis angle (54360), or plaque excision (54110, 54111, 54112). We plotted the frequencies of each intervention and calculated the best fit line and slope. All results were normalized to patients diagnosed with PD.

Results
In total, 17,647 veterans were diagnosed with PD. The percentage of men receiving treatment each year was roughly equal (Slope=0.0008, Figure 1). The number of patients treated with CCH increased from 2015-2019 (Slope=0.01, Figure 1) and the number of patients treated with surgery decreased (Slope=-0.009, Figure 1). Of all procedures, penile plications decreased the most (Slope=-0.006, Figure 1), and while excision and grafting and penile prosthetic only slightly decreased.

Conclusion
After the introduction of CCH, the percentage of veterans receiving treatment for PD remained steady however the percentage of patients undergoing surgery is decreasing. CCH appears to replace penile plication more than excision and grafting. Further research is needed to determine why patients are moving away from surgery and toward CCH as therapy.

Figure 1. Treatment trends of Peyronie's Disease at the VA from 2015-2019



Abstract # 26

Survey of Informed Consent Procedures in Urology

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Introduction:
The American Urological Association (AUA) code of professionalism requires surgeons to disclose the specific roles and responsibilities of trainees to patients during the informed consent process. The objective of this study is to analyze how these requirements are met by urology training programs.

Methods:
An anonymous electronic survey was distributed to the program directors (PDs) of the 143 Accreditation Council for Graduate Medical Education (ACGME) urology residency programs in the US in 2021. Responses were procured over three months. Information was collected regarding program demographics, aspects of the program's consent process, and the disclosure of the role and participation of residents to patients.

Results:
Of 143 distributed surveys, 30.0% (N=43) responded. 67.4% of responding PDs reported that attending physicians lead the consent process. The topics covered during consent discussion include possible complications (25.1%), expected recovery time (22.8%), length of the surgery (22.2%), the people involved (18.0%), and their specific roles (7.2%). 48.8% and 87.8% of PDs do not explicitly discuss trainee involvement or when a resident performs the majority of the case, respectively (Figure 1). 78.8% of PDs do not communicate medical student involvement. 73.2% reported having a patient decline participation of a trainee after describing their role.

Conclusions
Despite the AUA code of professionalism, many urologists involved in the training of residents may not disclose resident participation in surgery to patients. Further discussions are needed to explore how to better balance resident education while strengthening the informed consent process.

Abstract # 27

Comparing Survival Between Genders After Immunotherapy for Stage III and IV Urologic Malignancies

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Funding Source:
Grant from the National Cancer Institute (P30CA072720)

Introduction
Comparison of immunotherapy outcomes between genders is not well studied. Based on previously proposed differences in innate and adaptive immunity, we hypothesized that a survival difference may exist between males and females receiving immunotherapy.

Methods
ORIEN AVATAR database was used to collect clinical data of 1,035 cancer patients who received immunotherapy for various malignancies at ten different United States cancer centers. We compared survival between genders for 211 patients who had an AJCC stage III or IV urologic malignancy including renal, bladder, or upper tract urothelial carcinoma (UTUC). Kaplan Meier curves were used to analyze overall survival (OS) and progression free survival (PFS). Log rank test was used to calculate significance. Events for PFS included progression and recurrence. Chi-squared test was used for categorical variables and Mann-Whitney U Test was used for nonparametric continuous variables.

Results
156 patients (73.9%) were male and 55 (26.1%) were female. Median follow up time was 34.5 months. There were no significant differences for cancer type, stage, or immunotherapy between genders (Table 1). Significantly more females had a worse performance status (p=0.016) while more men had a smoking history (p=0.048). Between males and females, length of time from diagnosis to receiving immunotherapy (median 17.7 vs 20.2 months, respectively, p=0.53) and duration of immunotherapy treatment (median 5.6 vs. 4.4 months, respectively, p=0.96) was not significantly different. There was no significant difference in OS or PFS between genders for stage III or IV cancers (Figure 1). No significant OS or PFS difference was seen upon stratifying by cancer type.

Conclusion
No survival difference was seen between males and females receiving immunotherapy. Larger sample sizes with longer follow up times are needed to better assess if a difference exists.