**Friday, Poster Session 1**

**Moderators:** Jason C. Warncke, MD  
Shandra S. Wilson, MD, MBA

Gary K. Shahinyan  
University of Colorado  
**ROBOTIC NEPHROURETERECTOMY AND EXCISION OF MASSIVE DIVERTICULUM: CASE REPORT AND TECHNICAL CONSIDERATIONS**

Lily Kong  
University of Colorado  
**ROBOTIC URETEROLITHOTOMY FOR RETAINED STENT WITH MASSIVE ENCRUSTATION: CASE REPORT AND REVIEW OF THE LITERATURE**

Lily Kong  
University of Colorado  
**CAREGIVER DECISIONAL REGRET FOLLOWING RECONSTRUCTIVE BLADDER SURGERY IN CHILDREN WITH NEUROGENIC BLADDER**

Hannah Kyllo  
University of Colorado  
**SACROCLOPOPEXY WITH AUTOLOGOUS FASCIA: MID-TERM OUTCOMES**

Kelly Harris, MD  
Children's Hospital Colorado  
**USE OF INCISIONAL NEGATIVE PRESSURE WOUND THERAPY IN RECONSTRUCTIVE PEDIATRIC UROLOGY**

Dyvon Walker  
University of Colorado  
**CLINICAL OUTCOMES OF UROLOGICAL RECONSTRUCTION DURING CYTOREDUCTIVE SURGERY WITH HYPERTHERMIC INTRAPERITONEAL CHEMOTHERAPY**

Rebeca G. Jauregui  
University of Colorado  
**ROBOTIC-ASSISTED URETERAL REIMPLANTATION USING A NON-TRANSECTING SIDE-TO-SIDE TECHNIQUE FOR DISTAL URETERAL STRICTURES**

Nathaniel Ciddington, MD  
University of Colorado  
**SALVAGE ADJUSTABLE CONTINENCE THERAPY (ProACTTM) IN PATIENTS WITH ADVERSE FEATURES: INITIAL EXPERIENCE AND DESCRIPTION OF TECHNIQUE.**

Jason Sidrak  
University of Colorado  
**IS YOUR CAREER HURTING YOU? A GEOGRAPHICALLY CONTROLLED ASSESSMENT OF MEDICAL PRACTICE**

Brett Wiesen, MD  
University of Colorado  
**EXTREME-LOW-DOSE (XLD) INTRAOPERATIVE CT SCAN (ICT) (<0.5 mSv) ACHIEVED DURING PERCUTANEOUS STONE TREATMENTS USING A ROBOTIC MULTIPLANAR FLUOROSCOPY SYSTEMS (RMPFS).**

**Saturday, Poster Session 2**

**Moderators:** Granville L. Lloyd, MD  
Laura A. Mihalko, MD

Lauren Faber, MD  
University of New Mexico  
**DUODENAL Duplication CYST MASQUERADING AS METASTATIC NONSEMINOMATOUS GERM CELL TUMOR.**

Lauren Faber, MD  
University of New Mexico  
**PRIMARY RENAL GAstrinoma Causing ZOLLINGER-ELLISON SYNDROME TREATED WITH PARTIAL NEPHRECTOMY**

MaKenna White  
Denver Health  
**UNINTENDED CONSEQUENCES: A CASE OF “SELF-RESOLVING” PROSTATE CANCER**

Victor Trevisanuto  
University of Colorado  
**COMPARISON OF SURGICAL OUTCOMES IN ROBOTIC-ASSISTED RADICAL PROSTATECTOMY PERFORMED AT A TEACHING AND NON-TEACHING HOSPITAL**

Alex Hannemann, MD  
University of Colorado  
**COST OF UPPER TRACT IMAGING OBTAINED DURING HEMATURIA WORKUP: ANALYSIS OF NATIONAL CLAIMS DATABASE**

Alex Hannemann, MD  
University of Colorado  
**POPULATION-BASED TRENDS IN PATHOLOGIC FEATURES AMONGST PATIENTS UNDERGOING RADICAL PROSTATECTOMY**

Kayvon Kiani  
University of Colorado  
**USE OF ADJUVANT AND SALVAGE RADIATION THERAPY AMONGST PROSTATE CANCER PATIENTS UNDERGOING RADICAL PROSTATECTOMY: RESULTS FROM A POPULATION-BASED COHORT**

Kayvon Kiani  
University of Colorado  
**ASSOCIATION OF FRAILTY INDEX AND COMPLICATIONS FOLLOWING PROSTATE BIOPSY: RESULTS FROM A POPULATION-BASED COHORT OF PRIVATELY INSURED PATIENTS**

Sera Sempson  
University of Colorado  
**WHAT DRIVES RACIAL DIFFERENCES IN PROSTATE TREATMENT?**

Kyle Szymanski, MD  
University of Colorado  
**FEASIBILITY OF OUTPATIENT ROBOT ASSISTED LAPAROSCOPIC PROSTATECTOMY**
ROBOTIC NEPHROURETERECTOMY AND EXCISION OF MASSIVE DIVERTICULUM: CASE REPORT AND TECHNICAL CONSIDERATIONS

Authors: Gary K. Shahinyan*, Nathaniel Coddington, Lily Kong, Brian J. Flynn,

Introduction and Objective:
We present an unusual case of a man with no prior genitourinary history who was found to have a massive diverticulum of the bladder resulting in bilateral ureteral obstruction and severe ipsilateral renal atrophy successfully treated with robot-assisted laparoscopic (RAL) nephroureterectomy and excision of diverticulum.

Methods:
We reviewed the medical records of a patient treated at our institution for a large right-sided diverticulum of the bladder after presenting with rising creatinine and lower urinary tract symptoms. Work-up was concerning for bilateral ureteral obstruction and complete atrophy of the ipsilateral kidney. He was taken back for RAL excision of the diverticulum with concurrent nephroureterectomy. The video was recorded on the Da Vinci Xi System and edited in Adobe Premiere Pro to demonstrate our technique.

Results:
The case duration was 410 minutes with an estimated blood loss (EBL) of approximately 50 ml. The patient was discharged on post-op day five with a left ureteral stent and suprapubic tube in place. His stent was removed at his post-op visit. He subsequently passed capping trials of his suprapubic tube and is voiding spontaneously. There were no complications noted at his four-month follow-up.

Conclusions:
As demonstrated here, the RAL approach is feasible in the treatment of complex urogenital abnormalities.

Funding:
None

Conflicts of Interest:
None
Robotic Ureterolithotomy for Retained Stent with Massive Encrustation: Case Report and Review of the Literature

Lily Kong*, Nathaniel D. Coddington, Gary K. Shahinyan, Brian J. Flynn

Introduction and Objective: Massive encrustation is a rare complication of retained foreign bodies in the urinary tract. Large stone size and coexisting artificial material can limit endoscopic options, necessitating surgical removal. We present a case of massive encrustation of a retained ureteral stent treated with robotic-assisted laparoscopic (RAL) ureterolithotomy.

Methods: We reviewed the medical records of a patient with massive encrustation of a retained ureteral stent placed one year prior in Colombia who was treated with RAL ureterolithotomy at our institution. Footage captured on the da Vinci Xi System was edited in Adobe Premiere to provide a video representation of our technique. A brief literature review was performed in MEDLINE, Emboss, and Preprints using the search term "robotic ureterolithotomy," which resulted in 88 studies. These were reviewed by two investigators for content and applicability, resulting in five studies included for review.

Results: Case duration was 194 minutes with an estimated blood loss (EBL) of approximately 15 ml. There were no complications and the patient was discharged three days post-operatively with a right ureteral stent and percutaneous nephrostomy tube. Her stent was removed at a subsequent follow-up visit, as was her nephrostomy tube following a successful clamp trial. Due to difficult social circumstances, she is pending follow-up for renal lasix scan.

Review of the literature showed 100% stone free rates in adults treated with RAL ureterolithotomy. Our case duration and EBL were similar to published reports, although the stone was significantly larger, at approximately 13 cm.

Conclusions: RAL ureterolithotomy is safe and effective in the treatment of massively encrusted ureteral stents.

Source of Funding: None

Conflict of Interest and Disclosure Statement: None
Caregiver Decisional Regret Following Reconstructive Bladder Surgery in Children with Neurogenic Bladder

Lily Kong*, Carter Sevick, Gemma Beltran, Kyle Rove, Duncan Wilcox, Sarah Hecht

Introduction and Objective: To assess decisional regret among caregivers of children with neurogenic bladder following reconstructive bladder surgery.

Methods: Patients who underwent reconstructive bladder surgery at Children’s Hospital Colorado were identified from an existing institutional pediatric urologic reconstruction database. A validated decisional regret (DR) survey was distributed to caregivers of children with neurogenic bladder who had undergone reconstructive bladder surgery. DR scores range from zero to 100, with higher numbers indicating higher regret. Non-English-speaking caregivers were excluded. Wilcoxon rank sum test and Spearman correlation were performed to assess differences in DR scores by patient demographic factors (sex, race, insurance status, distance from hospital) or disease factors (underlying diagnosis, surgical procedure, continence, difficulty catheterizing, UTI frequency).

Results: Forty-five of 210 English-speaking caregivers completed the DR survey (response rate 21%, 25 female and 20 male patients). There was a difference in underlying diagnosis between responders and non-responders; the groups were otherwise demographically similar (Table 1). Median DR score was 5 [range 0-70, IQR 0-25], with 40% of subjects reporting no DR. DR scores of 30 or higher were calculated for eleven subjects (24%). The sole variable associated with DR was patient sex, with caregivers of male children having higher calculated DR scores [male median 25 (IQR 5-40) vs female median 0 (IQR 0-10), p=0.005] (Figure 1).

Conclusions: Caregiver DR following bladder reconstruction in children with neurogenic bladder is generally low, however a subset of caregivers report DR. This study suggests that caregivers of male children may have significantly higher DR, a finding that merits further investigation.

Source of Funding: None

Conflict of Interest and Disclosure Statement: None
Table 1. Baseline Characteristics of Patients

<table>
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<th>Characteristic</th>
<th>Total</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>100.0% (210)</td>
<td>78.6% (165)</td>
<td>21.4% (45)</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>54.3% (114)</td>
<td>53.9% (89)</td>
<td>55.6% (25)</td>
</tr>
<tr>
<td>Male</td>
<td>45.7% (96)</td>
<td>46.1% (76)</td>
<td>44.4% (20)</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White/European American</td>
<td>74.8% (157)</td>
<td>73.3% (121)</td>
<td>80.0% (36)</td>
</tr>
<tr>
<td>Latino/Hispanic American</td>
<td>13.8% (29)</td>
<td>14.5% (24)</td>
<td>11.1% (5)</td>
</tr>
<tr>
<td>Other/unknown</td>
<td>11.4% (24)</td>
<td>12.1% (20)</td>
<td>8.9% (4)</td>
</tr>
<tr>
<td><strong>Insurance</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Medicaid</td>
<td>41.0% (86)</td>
<td>42.4% (70)</td>
<td>35.6% (16)</td>
</tr>
<tr>
<td>Commercial</td>
<td>58.6% (123)</td>
<td>57.0% (94)</td>
<td>64.4% (29)</td>
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<tr>
<td>Other</td>
<td>0.5% (1)</td>
<td>0.6% (1)</td>
<td>0.0% (0)</td>
</tr>
<tr>
<td><strong>Underlying diagnosis</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spina bifida</td>
<td>45.2% (95)</td>
<td>41.2% (68)</td>
<td>60.0% (27)</td>
</tr>
<tr>
<td>Exstrophy-epispadias complex/cloacal exstrophy</td>
<td>6.7% (14)</td>
<td>5.5% (9)</td>
<td>11.1% (5)</td>
</tr>
<tr>
<td>Posterior urethral valves</td>
<td>5.7% (12)</td>
<td>7.3% (12)</td>
<td>0.0% (0)</td>
</tr>
<tr>
<td>Other</td>
<td>42.4% (89)</td>
<td>46.1% (76)</td>
<td>28.9% (13)</td>
</tr>
<tr>
<td><strong>Distance from hospital (miles)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>181.7</td>
<td>180.4</td>
<td>186.2</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>313.4</td>
<td>313.9</td>
<td>314.7</td>
</tr>
<tr>
<td>Median</td>
<td>63</td>
<td>64</td>
<td>59.2</td>
</tr>
<tr>
<td>Quartile range</td>
<td>212.7</td>
<td>185</td>
<td>231.2</td>
</tr>
</tbody>
</table>

Figure 1. Decisional Regret Scores by Sex
Introduction and Objective
Many patients with pelvic organ prolapse (POP) desire surgical repair with sacrocolpopexy, but may either prefer to avoid the risks of synthetic mesh or have relative contraindications to mesh use. Sacrocolpopexy with autologous fascia is an alternative technique with limited data regarding longer term outcomes.

Methods
A cross-sectional study was conducted on patients who underwent abdominal or robotic sacrocolpopexy or sacrohysteropexy using an autologous fascia graft (either rectus fascia or fascia lata) between January 2018 and March 2022 at a single institution. Demographic and clinical characteristics were collected by review of the electronic medical record. The primary outcome measure was surgical success defined as no reoperation for apical POP. Patient-reported outcomes were also assessed by response to question 3 of the Pelvic Floor Distress Inventory Short Form (PFDI-20) (“Do you usually have a bulge or something falling out that you can see or feel in your vaginal area?”), including a bother scale for those patients who answered affirmatively. Follow-up time was defined as the time between surgery and the date of the last postoperative office visit or PFDI-20 questionnaire response.

Results
20 women underwent autologous fascia sacrocolpopexy (n=19) or sacrohysteropexy (n=1) during the study period. Median age at time of surgery was 58.5 years (range 30-76). Median BMI was 25.5 (range 22-42). The autologous fascia graft was rectus fascia for 13 patients and fascia lata for seven patients. One patient underwent surgery for perforated appendicitis within 30 days of sacrocolpopexy; otherwise, there were no major (Clavien grade ≥ 3) 30-day complications. Median follow-up time was 22.4 months (range 1.8-56.3 months). Surgical success rate was 95%. One patient underwent reoperation for recurrent apical POP. Responses to PFDI-20 question 3 were available for 13 patients. Four patients (31%) answered “Yes” to question 3 of the PFDI-20. Among these patients with symptoms present, median Bother Scale response was 0 (bother not present) and ranged from 1 (not at all) to 3 (moderately).

Conclusions
Sacrocolpopexy with autologous fascia is a safe and effective procedure to repair apical POP. This procedure avoids the risks of synthetic mesh-related complications and may be offered as an alternative to women considering sacrocolpopexy, although longer follow-up studies are needed.
Use of incisional negative pressure wound therapy in reconstructive pediatric urology

Camila Vargas¹,²*, Kelly T. Harris¹,², Dan Wood¹,², Vijay Vemulakonda¹,², Duncan T. Wilcox¹,², Kyle O. Rove¹,²

¹Pediatric Urology Research Enterprise (PURE), Department of Pediatric Urology, Children's Hospital Colorado, Aurora, CO
²Division of Urology, Department of Surgery, University of Colorado Denver Anschutz Medical Campus, Aurora, CO

Introduction/Objective

Surgical site occurrences (SSO), which include surgical site infections (SSI), superficial wound dehiscence and seromas, are significant complications after reconstructive pediatric urologic surgery. These can increase length of stay, require readmission after surgery, and cause physical and emotional morbidity to the patient and family. Use of incisional negative pressure wound therapy (iNPWT) has been shown to reduce SSO and readmissions in adult urology and adult and pediatric general surgery literature. This is the first study to assess its use in a pediatric urologic population.

Methods

We prospectively enrolled patients to have an iNPWT placed after reconstructive surgery. Patient demographic and surgical variables were collected prospectively. The primary outcome of 30-day SSO and secondary outcomes of SSI, wound dehiscence, seroma, and readmission rates were analyzed descriptively.

Results

Seven patients have been enrolled to date and are described in Table 1. SSO were seen in two out of seven patients. One patient with a history of prune belly syndrome had a surgical site infection requiring drainage of a suprafascial abscess. Notably, he did not drain from his incision, which remained dry and intact, rather he drained from around his Mitrofanoff site. There was one minor wound dehiscence in a patient with a history of SSO, diabetes mellitus, chronic kidney disease, and immunosuppression for liver transplant as well seven prior abdominal surgeries. The remaining five patients have had no SSO, four had complications not related to their surgical site, with one requiring readmission for pyelonephritis.

Conclusions
This study acts as a proof of concept for iNPWT use in reconstructive pediatric urology. While there are still wound complications that arose, these were limited to patients with significant comorbidities and prior operative intervention. Continued enrollment in this study is ongoing. Future analysis will compare iNPWT outcomes to a matched historical cohort who had routine incision closure.

Source of Funding: none

Conflict of Interest and Disclosure Statement: none
Abstract

Title: Clinical outcomes of urological reconstruction during cytoreductive surgery with hyperthermic intraperitoneal chemotherapy

Authors: Margaret Higgins, Salvador Rodriguez Franco, Dyvon Walker*, Brian J. Flynn, Steven A. Ahrendt, Ty Higuchi

Introduction and Objective:
Over the past two decades, cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC) have become standard of care for resectable peritoneal carcinomatosis. Roughly 7-20% of CRS/HIPEC cases involve resection or reconstruction of the urinary tract. Our aim is to examine our institutional experience to determine the potential impact of pre-operative planning and timing of reconstruction on urological outcomes.

Methods:
This is a retrospective/secondary data analysis of all patients who underwent CRS/HIPEC between June 2010 to February 2022. Data is routinely collected for every CRS in an IRB-approved RedCap database. During this time period, there were 489 procedures, representing 413 unique patients of which 276 underwent HIPEC in addition to the CRS. We performed a chart review on each case to identify those in which the urology team was involved intraoperatively to repair or reconstruct the urinary tract. There were 27 cases identified. We collected data on the patient demographics, pre-existing conditions, intraoperative details, and post-operative outcomes. Descriptive analysis were used to evaluate our cohort, focusing on short and long term urologic complications.

Results:
Between June 2010 and February 2022, there were 276 CRS/HIPEC cases. Urologic reconstruction performed by the Urology team occurred in 27 cases (9.8%). Table 1 demonstrates the breakdown of urologic procedures performed. Sixteen were intraoperative consults and 11 were planned urologic involvement. Urologic reconstruction was performed after the administration of HIPEC in 16 cases (59%), and 11 were performed prior. Median follow-up time was 16.2 months (range 2.4-94). Table 2 shows the immediate post-operative complications and the long-term urologic complications. Twenty patients (74%) had a post-operative urologic complication. Nine patients (33%) developed long term sequelae: ureteral stricture (N=6), urinary retention (N=3), urinary incontinence (N=1) and fistula (N=1, colovesical).

Of the six patients that developed ureteral strictures, three had undergone reimplant, one had U-U, and two had complex cystotomies. Three of them had post-operative urine leaks. At the time of last follow-up, one stricture had been reimplanted, one was balloon dilated, two were managed with indwelling stents, and two managed with percutaneous nephrostomy tubes.

Conclusions:
Urological reconstruction in conjunction with CRS/HIPEC surgeries add to the complex healing required to recover from these surgeries. Our long-term urologic complication rate is low when compared to overall complications from these procedures.
Table 1: Urologic procedure performed during CRS/HIPEC.

<table>
<thead>
<tr>
<th>Urologic Procedure</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ureterolysis</td>
<td>14 (52%)</td>
</tr>
<tr>
<td>Unilateral</td>
<td>4 (15%)</td>
</tr>
<tr>
<td>Bilateral</td>
<td>10 (37%)</td>
</tr>
<tr>
<td>Ureterectomy</td>
<td>14 (52%)</td>
</tr>
<tr>
<td>Ureteral reimplant</td>
<td>12 (44%)</td>
</tr>
<tr>
<td>Partial cystectomy</td>
<td>11 (41%)</td>
</tr>
<tr>
<td>Cystotomy repair</td>
<td>11 (41%)</td>
</tr>
<tr>
<td>Radical cystectomy</td>
<td>2 (7%)</td>
</tr>
<tr>
<td>Ureteroureterotomy</td>
<td>1 (4%)</td>
</tr>
<tr>
<td>Pyeloplasty</td>
<td>1 (4%)</td>
</tr>
<tr>
<td>Partial nephrectomy</td>
<td>1 (4%)</td>
</tr>
</tbody>
</table>

Table 2: Urologic complications, both short term (immediate post-op) and long term.

<table>
<thead>
<tr>
<th>Urologic Complication</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term</td>
<td></td>
</tr>
<tr>
<td>AKI</td>
<td>7 (26%)</td>
</tr>
<tr>
<td>UTI</td>
<td>6 (22%)</td>
</tr>
<tr>
<td>Urine Leak</td>
<td>4 (15%)</td>
</tr>
<tr>
<td>Sepsis</td>
<td>3 (11%)</td>
</tr>
<tr>
<td>Long-term</td>
<td></td>
</tr>
<tr>
<td>Ureteral stricture</td>
<td>6 (22%)</td>
</tr>
<tr>
<td>Retention</td>
<td>3 (11%)</td>
</tr>
<tr>
<td>Incontinence</td>
<td>1 (4%)</td>
</tr>
<tr>
<td>Fistula</td>
<td>1 (4%)</td>
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</tbody>
</table>

Source of Funding: None

Conflict of Interest and Disclosure Statement: None
Title: Robotic-Assisted Ureteral Reimplantation Using a Non-Transecting Side-to-Side Technique for Distal Ureteral Strictures.

Authors: Rebeca Gonzalez Jauregui*, Nathaniel Coddington & Brian Flynn

Introduction and Objective: To describe our experience with robotic-assisted ureteral reimplantation using a non-transecting side-to-side technique for the surgical management of distal ureteral strictures.

Methods: We retrospectively reviewed 5 patients treated between May 2020 and September 2022. Preoperative characteristics, perioperative data and post-operative outcomes were collected. Success was defined as freedom from further surgical intervention to treat ureteral stricture recurrence.

Results: The median time from diagnosis to treatment was 5 months. The median stricture length was 2 cm. The median operative time and estimated blood loss were 211 minutes (range 188-407) and 50 mL (range 15-75), respectively. No complications occurred intraoperatively. One patient had a Clavien-Dindo grade ≥3 complication due to stent malpositioning, which was managed endoscopically. The median follow-up time was 13 months (range 1-29). Clinical success rate was 100% (5/5).

Conclusions: Ureteral reimplantation via a non-transecting side-to-side anastomosis is safe and effective in the treatment of distal ureteral strictures.

Source of Funding: None

Conflict of Interest and Disclosure Statement: None

Table 1. Summary of Results

<table>
<thead>
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<td><strong>Preoperative data</strong></td>
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<td>Age (Median, Range)</td>
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<tr>
<td>Stricture length (Median, Range)</td>
</tr>
<tr>
<td>Time from Diagnosis to Treatment (Median, Range)</td>
</tr>
<tr>
<td>Prior endoscopic management (%)</td>
</tr>
<tr>
<td>Etiology (%)</td>
</tr>
<tr>
<td><strong>Intraoperative data</strong></td>
</tr>
<tr>
<td>Operative Time (Median, Range)</td>
</tr>
<tr>
<td>Estimated blood loss (Median, Range)</td>
</tr>
<tr>
<td>Robotic (%)</td>
</tr>
<tr>
<td>Intraoperative complications (%)</td>
</tr>
<tr>
<td><strong>Postoperative outcomes</strong></td>
</tr>
<tr>
<td>Clinical success (%)</td>
</tr>
<tr>
<td>Postop complication &gt;= CD3 (%)</td>
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<tr>
<td>Median Follow up (Range)</td>
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</table>
Salvage Adjustable Continence Therapy (ProACT™) in Patients with Adverse Features: Initial Experience and Description of Technique

Nathaniel D. Coddington*, Lily Kong, Rebeca Gonzalez Jauregui, Brian J. Flynn

Introduction and Objective: Adjustable continence therapy (ProACT™) is a device recently approved for male stress urinary incontinence (SUI) in the United States. We present our experience with ProACT as salvage therapy in a cohort of men with severe incontinence and history of radiotherapy, artificial urinary sphincter (AUS) erosion, or urethroplasty.

Methods: From June 2021 to November 2022, 19 men underwent implantation. Device volume was adjusted every four to six weeks until desired continence or maximum volume was reached. Degree of incontinence was assessed by pads per day (PPD) or 24-hour pad weight. Patients were considered dry if they used zero to one PPD or lost less than 50 grams in 24 hours, and improved if they had a decrease in either by at least 50%. Treatment success was defined as dry or improved.

Results: Of 19 patients, 12 had a history of radiation and 10 had a prior AUS erosion. 73% failed prior continence treatment. Median pre-operative PPD was seven (Table 1). 53% achieved success, with six dry and two improved. Median post-operative PPD was three (Table 2). A median of three adjustments were required with a median final device volume of six milliliters. 40% of patients experienced a Clavien-Dindo ≥3b complication, primarily device migration requiring operative revision (Table 3).

Conclusions: ProACT can be effective in treating male SUI in complex patients with adverse features. Complications, primarily device migration, were high.

Source of Funding: None

Conflict of Interest and Disclosure Statement: Brian J. Flynn is an investigator for Boston Scientific and Uromedica.
Table 1. Preoperative Data

<table>
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<tr>
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<th>Value</th>
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<td>Age (Median, IQR)</td>
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<tr>
<td>PPD (Median, IQR)</td>
<td>7 (IQR 3-10)</td>
</tr>
<tr>
<td>Prior prostatectomy (%)</td>
<td>86.7% (13/15)</td>
</tr>
<tr>
<td>History of Radiation (%)</td>
<td>80.0% (12/15)</td>
</tr>
<tr>
<td>History of urethroplasty (%)</td>
<td>6.7% (1/15)</td>
</tr>
<tr>
<td>Prior continence procedure</td>
<td></td>
</tr>
<tr>
<td>AUS</td>
<td>66.7% (10/15)</td>
</tr>
<tr>
<td>Sling</td>
<td>20.0% (3/15)</td>
</tr>
<tr>
<td>Sling+AUS</td>
<td>13.3% (2/15)</td>
</tr>
<tr>
<td>Total</td>
<td>73.3% (11/15)</td>
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<tr>
<td>Prior AUS Erosion</td>
<td>66.7% (10/15)</td>
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Table 2. Postoperative Outcomes

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</tr>
<tr>
<td>Final device volume (Median, IQR)</td>
<td>6 (IQR 4-8)</td>
</tr>
<tr>
<td>PPD (Median, IQR)</td>
<td>3 (IQR 1-9)</td>
</tr>
<tr>
<td>Success (%)</td>
<td>53% (8/15)</td>
</tr>
<tr>
<td></td>
<td>6 Dry, 2 Improved</td>
</tr>
</tbody>
</table>

Table 3. Postoperative Complications

<table>
<thead>
<tr>
<th>Complication type (%)</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clavien-Dindo &gt;3b (%)</td>
<td>40.0% (6/15)</td>
</tr>
<tr>
<td>Migration</td>
<td>40.0% (6/15)</td>
</tr>
<tr>
<td>Erosion</td>
<td>26.7% (4/15)</td>
</tr>
<tr>
<td>Device Failure</td>
<td>13.3% (2/15)</td>
</tr>
</tbody>
</table>
Is Your Career Hurting You? A Geographically Controlled Assessment of Medical Practice

Jason Sidrak*, Paige Hargis, Granville L Lloyd,
Department of Surgery/Urology, University of Colorado Anschutz Medical Campus, Aurora, CO USA

Introduction and Objective: Ergonomic research has primarily focused on procedural physicians due to perceived higher risk of developing work induced musculoskeletal disorders (WIMD). There remains little data analyzing WIMD including non-surgical specialties, especially in an environmentally controlled setting. We set out to assess the relationship of pain, practice type, screen time and other factors in a geographically controlled cross-specialty cohort of practicing physicians.

Methods: An anonymous web survey was distributed to participating departments of our institution, including Anesthesiology, Emergency Medicine (EM), Otolaryngology (ENT), Family Medicine (FM), Medicine, Inpatient Pediatrics, and Surgery including Urology. The primary outcome measures were subjective reports of significant neck and back pain. Secondary outcome measures include computer task time and direct clinical time. Qualtrics Software backed on a secure CU server was utilized to manage data. Chi-square analysis was performed to analyze variance in means and percentages across the specialties.

Results: Data was extracted from 746 surveys. Analysis was restricted to MD/DO attending physicians (n=476). The department of ENT, pediatrics, and surgery had the highest percentages of significant pain at 81.82%, 61.11%, and 58.11% respectively. 76.92% of anesthesiologists report working 40+ clinical hours a week while 57.14% of FM physicians work less than 19 clinical hours a week. The highest weekly hourly averages spent on computer related tasks were internal medicine and FM at 5.54 and 5.36 respectively.

Conclusions: We found a higher prevalence of pain among procedural specialties; this suggests but does not prove a causative role intrinsic to specialty. The increased time spent on computer related tasks in non-procedural departments represents a workforce that may benefit from further ergonomic investigation but does not appear related to WIMD. Further research is crucial to protect and retain a healthy physician workforce.

Sources of funding: None
Conflict of Interest: None
Table 1:

<table>
<thead>
<tr>
<th></th>
<th>Anesthesia</th>
<th>ENT</th>
<th>FM</th>
<th>Internal Medicine</th>
<th>EM</th>
<th>Inpatient Peds</th>
<th>Surgery</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significant Pain (%)</td>
<td>34.38</td>
<td>81.82</td>
<td>41.02</td>
<td>47.83</td>
<td>44.83</td>
<td>61.11</td>
<td>58.11</td>
<td>p=0.027</td>
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</table>

Table 2:

<table>
<thead>
<tr>
<th></th>
<th>Anesthesia</th>
<th>ENT</th>
<th>FM</th>
<th>Internal Medicine</th>
<th>EM</th>
<th>Inpatient Peds</th>
<th>Surgery</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent reporting 0-20 clinical hours per week</td>
<td>1.54</td>
<td>0.00</td>
<td>57.14</td>
<td>32.80</td>
<td>37.50</td>
<td>34.15</td>
<td>4.82</td>
<td>p&lt;0.001</td>
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<tr>
<td>Percent reporting over 40 clinical hours per week</td>
<td>76.92</td>
<td>58.33</td>
<td>0.00</td>
<td>15.59</td>
<td>15.63</td>
<td>19.51</td>
<td>57.83</td>
<td>p&lt;0.001</td>
</tr>
</tbody>
</table>

Table 3:

<table>
<thead>
<tr>
<th></th>
<th>Anesthesia</th>
<th>ENT</th>
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<th>Inpatient Peds</th>
<th>Surgery</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screen time per day, weekdays, average</td>
<td>3.43</td>
<td>4.72</td>
<td>5.36</td>
<td>5.54</td>
<td>5.19</td>
<td>5.23</td>
<td>4.21</td>
<td>p&lt;0.001</td>
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</table>
Extreme-Low-Dose (XLD) Intraoperative CT scan (ICT) (<0.5 mSv) Achieved During Percutaneous Stone Treatments using a Robotic Multiplanar Fluoroscopy Systems (RMPFS)

Introduction:
A hybrid room robotic multiplanar fluoroscopy systems (RMPFS) has been integrated into our regular practice of endoscopic stone treatment. Using a 5s BODY CARE protocol, intraoperative CT scans (ICT) were performed in 27 patients to date with a median effective dose (ERD) per scan of 1.36 mSv. Ultra-low-dose (ULD) CT is typically defined as <2 mSv to be distinguished from “low-dose” (<5 mSv). However, in our series we have achieved doses much lower than 2 mSv in some patients. We describe three cases with ERD that is less than a quarter of the threshold for ULD (<0.5 mSv).

Methods: Patients scheduled for PCNL are scheduled into a hybrid room containing an Artis Zeego Care+Clear™ (Siemens) RMPFS system. ICT is performed with collimation to the level of the kidney upon completion of stone treatment to identify any residual stone burden, with intention to treat immediately if needed.

Results:
ICT ERD<0.5 mSv (0.248, 0.398, and 0.491 mSv respectively) was achieved in three supine PCNL cases, including a bilateral tubeless mini-PCNL performed as an outpatient (Figure). Image settings were 90kV/110-262 mA. Patients were normal weight with BMI 22.51 (20.39-26.6). In two cases, there was no residual stones. Residual stone was clearly visualized in an unusually complex post-cystectomy patient but was unable to be completely treated despite a second procedure. There were no complications. Compared to the pre-operative CTs in these patients, dose reduction ranged from 95-97% in these cases.

Conclusions:
It is feasible to achieve even much lower doses than typical ULD CT intraoperatively using RMPFS. Although we favor a more dynamic definition of dose reduction for children and under-weight or obese adults, “extreme low dose” (XLD) would be appropriate nomenclature to distinguish such studies from “ultra-low-dose” CTs in normal-sized adults.
Source of Funding: None

Conflict of interest and disclosures: None
Duodenal duplication cyst masquerading as metastatic nonseminomatous germ cell tumor

Lauren S. Faber MD*, Frances Alba MD, Neda Hashemi MD

Introduction and Objectives

Testicular cancer is a heterogeneous disease that may present with localized disease, regional lymph node spread, or distant metastasis. Persistent tumor markers after orchiectomy or visible nodes on computed tomography (CT) are used to determine next steps in treatment algorithms. We present the case of a patient with persistent tumor markers after orchiectomy and an enlarged retroperitoneal mass who underwent chemotherapy with persistence of the mass, which turned out to be a duodenal duplication cyst.

Methods

A 38 year old male underwent right radical orchiectomy for a 2.8 cm testicular mass. Pathology revealed 95% seminoma, 5% embryonal carcinoma, and an area concerning for necrotic yolk sac tumor without lymphovascular invasion. Preoperative alpha fetoprotein (AFP) was 40. Post-operative AFP was 42. CT showed an 8 cm retroperitoneal mass with internal septations and a thick rind that displaced the duodenum, concerning for metastatic disease. Thus, he was classified as clinical stage IIc and had three cycles of bleomycin, etoposide, and cisplatin (BEP). His post-chemotherapy tumor markers normalized. However, a repeat CT showed persistence of the 8 cm retroperitoneal mass. Chest CT was negative for disease. The decision was made to perform a retroperitoneal lymph node dissection (RPLND). Intra-operatively, it was noted that the mass was densely adherent to the duodenum. He recovered well from surgery and was discharged home on postoperative day four. He returned two weeks later with symptoms of early satiety, postprandial abdominal pain, and weight loss. CT scan showed a small lymphocele and possible portal vein thrombosis for which he was started on anticoagulation per vascular surgery. Small bowel follow through showed no evidence of duodenal injury. He was discharged home with improvement of symptoms. Two years later, his tumor markers remain negative and CT scans show no evidence of recurrence of disease.

Results

Pathology showed six benign lymph nodes and a retroperitoneal mass with cystic degeneration and patchy epithelial enteric lining consistent with a duodenal duplication cyst.

Conclusions

While most (68%) testicular cancer is localized at time of diagnosis, 19% of patients are found to already have regional lymph node spread. Our patient had clinical IIc disease, treated with BEP with persistent retroperitoneal mass after treatment. Pathology from the RPLND did not show any signs of metastatic disease, but rather showed a duodenal duplication cyst.
Duodenal duplication cysts are rare, with an estimated prevalence of 1 in 100,000 live births.\textsuperscript{2} Typical symptoms include abdominal pain, nausea, vomiting, and weight loss. Some duplication cysts can cause pancreatitis.\textsuperscript{2} As these cysts can harbor malignancy, the standard treatment is complete surgical excision.\textsuperscript{3,4} Duodenal duplication cysts have characteristic appearance based on imaging. On ultrasound, they are anechoic, double-walled, bilobed cystic lesions.\textsuperscript{2} On CT, they appear as discrete, fluid-filled structures and are typically attached to the medial wall of the descending duodenum.\textsuperscript{2} While our patient was asymptomatic, his CT scan did show a fluid filled cystic lesion near the duodenum. We present what is the first case of a duodenal duplication cyst masquerading as metastatic testicular cancer.

**Financial Disclosures:** No authors have financial disclosures

**Funding:** No funding for this study was obtained

**Sources:**


Primary renal gastrinoma causing Zollinger-Ellison Syndrome treated with partial nephrectomy
Lauren S Faber*, Andrew Zilavy, Amanda Lokke, Damara Kaplan, Michael S Davis

Introduction and Objective

The diffuse neuroendrocrine system is a collection of cell populations throughout the body with endocrine, paracrine and autocrine functions.¹ Tumors arising from these cells are broadly grouped as neuroendocrine tumors (NETs), with less than 1% in the genitourinary system.¹,² NETs may be functional, producing hormones such as vasoactive peptide or serotonin causing Carcinoid syndrome.³ Gastrin secreting NETs (gastrinomas) cause Zollinger-Ellison syndrome, which presents with diarrhea and abdominal pain.¹ Primary renal gastrinoma has only been reported twice in the literature, both treated with radical nephrectomy.⁴,⁵ Here we report the first case of renal gastrinoma treated with partial nephrectomy.

Methods

A 20 year old healthy male presented to his primary care doctor for one year of diarrhea and abdominal pain. Stool studies were normal. He was referred to gastroenterology. Endoscopy showed esophagitis, gastritis, duodenitis and ulcers. Biopsies were negative for H. pylori or malignancy. He was started on a proton pump inhibitor (PPI). Repeat endoscopy 3 months later showed disease persistence. Biopsies were positive for H. Pylori. Serum gastrin was elevated (469 pg/mL). He was treated with triple therapy and discharged to primary care.

He was referred back to 7 months later for continued diarrhea, weight loss and abdominal pain despite triple therapy and PPI. Endoscopy showed esophagitis, gastritis and duodenitis. Biopsy was H. pylori negative. Serum gastrin was 1524 pg/mL. MRI to assess for gastrinoma revealed a 3.4cm weakly enhancing, endophytic, well-circumscribed, superior pole right renal mass. An octreotide scan showed somatostatin receptor avidity of the right renal mass. He was referred to
urology, who ordered a biopsy, which showed low grade G1 primary renal gastrinoma. Chest CT was negative for metastasis.

Open partial nephrectomy was performed via flank incision off of the 11th rib. Intraoperative ultrasonography was used to delineate the mass. Deep frozen margins were negative for tumor.

Results

Final pathology was pT1a well differentiated neuroendocrine tumor, grade 2. Margins were negative. Lymphovascular invasion was noted. He screened negative for MEN1 syndrome. At 10 month follow up the patient had no serologic, radiographic or symptomatic evidence of gastrinoma relapse.

Conclusions

This case demonstrates the feasibility of renal preservation in a small, well-differentiated primary renal gastrinoma.

Financial Disclosures: No authors have financial disclosures

Funding: No funding for this study was obtained
Unintended Consequences: A case of “self-resolving” prostate cancer

*MaKenna White M.S., Shauna Maty M.D., Michael McLaughlin M.D., and Fernando J. Kim M.D., MBA. Urology, Denver Health Medical Center

Introduction:
In reviews from 1941, Hodges (1) had proposed to suppress activity of metastatic prostate cancer by targeting the production of gonadotropin manufacture and release. In 1976, Tindall (2)-carried out transsphenoidal hypophysectomies to create secondary hypogonadism to manage metastatic prostate and breast cancer. The anterior pituitary produces and releases LH, FSH, ACTH-TSH. This area is also vulnerable to vascular and compressive trauma. We present a patient who controlled otherwise untreated prostate cancer after developing a pituitary lesion.

Background:
A 74-year-old male presented in 2018 with Stage II, Gleason 4+3 [Grade Group 3] prostate cancer, with a prostate specific antigen (PSA) level of 7 ng/mL. In 2022, after a lost follow-up, the patient presented to an OSH with mild frontal headaches and bitemporal hemianopsia. The MRI revealed a 2 cm pituitary macroadenoma (Figure 1). Neurosurgery recommended no surgical intervention or radiation at that time. The patient did not develop metastatic disease and his prior lower urinary tract symptoms (LUTS) disappeared. Labs completed -see Table I. Ablative therapy was completed in October 2022. The patient is well, using supplemental thyroxine and cortisol.
Discussion:

This patient presented with a pituitary macroadenoma and a history of untreated prostate cancer. This presentation included at least 4 tropic hormones diminished with no recognized symptoms of these deficiencies. Because of a pituitary macroadenoma that abrogated the effects of testosterone on prostate cancer, this case of "self-resolving" prostate cancer led to an appreciation of hormonal manipulation and intricate physiology.
Comparison of Surgical Outcomes in Robotic-Assisted Radical Prostatectomy Performed at a Teaching and Non-Teaching Hospital
Victor Trevisanut*, Colby Simmons, Andrew Nicklawsky, Paul Maroni

Introduction and Objective
Patients often worry that resident trainee involvement in a surgical procedure will result in worse clinical outcomes. In order to assess the impact of resident education on a specific surgical procedure, we sought to compare the perioperative outcomes of robotic-assisted radical prostatectomy (RARP) performed by a single surgeon at a teaching and non-teaching hospital.

Methods
A retrospective two-center observational cohort study was conducted to compare surgical outcomes of all patients who underwent RARP by a single surgeon between September 2019 and April 2021 at an academic teaching hospital, University of Colorado Hospital (UCH) (N=76) and a non-teaching community hospital, UCHealth Highlands Ranch (HRH) (N=65). Surgeries performed at UCH were performed with active participation of resident physicians. Intraoperative outcomes were measured by estimated blood loss and operative time. Postoperative outcomes were measured by the 90-day complication rate and rate of positive surgical margin. Postoperative complications were categorized using the Clavien-Dindo grading system. Patients were matched by age, PSA level at preoperative visit, and Gleason grade group.

Results
Of 141 total RARP procedures performed in the two hospital settings (academic vs community), no statistically significant difference was observed in short-term complication rate (OR 0.84, (95% CI 0.2581, 2.7524) p=0.77), positive margin rate (18.4% vs 15.4%, p=0.632), or intraoperative blood loss (140.13±83.4 mL vs 126.62±122.3 mL, p=0.44). Surgeries performed at the academic teaching hospital showed a statistically significant longer operating time (3.31±0.51 hours vs 2.26±0.36 hours, p=<0.001).

Conclusions
Robotic prostatectomy at a teaching hospital did not lead to worse intra or postoperative outcomes in patients undergoing RARP, though operative times were longer. Patients can be reassured that meaningful short-term perioperative outcomes are not impacted by resident trainee involvement in care. Long-term side effects were not examined in this study.
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Source of Funding: None
Conflict of Interest and Disclosure Statement: None
Introduction and Objective:
Hematuria is a common clinical symptom in adults and the urologic workup for this disease burdens the healthcare system with associated costs. Using a privately-insured, claims-based national cohort, we sought to evaluate the cost of hematuria evaluation. We hypothesized that evaluation with contrast-enhanced computed tomography (CT) confers more cost to hematuria evaluation than renal ultrasound (US).

Methods:
Using a national, privately insured database (MarketScan), we identified all individuals with an incident diagnosis of hematuria. We included patients who underwent cystoscopy and upper tract imaging within 3 months of diagnosis. We tabulated the costs of the imaging study as well as the total healthcare cost per patient. A multivariable model was developed to evaluate patient risk factors associated with total healthcare costs.

Results:
We identified 377,359 patients with hematuria who underwent evaluation. Median costs associated with upper tract imaging were $425 overall, $359 for CT with contrast, $117 for US, $622 for MRI, and $226-253 for other imaging (CT without contrast, retrograde pyelogram). Median cystoscopy cost was $294. Total healthcare costs per patient were highest amongst patients undergoing MRI and CT imaging. When adjusted for comorbidities, tobacco use, higher Elixhauser index, gross hematuria and male sex were associated with higher costs of hematuria evaluation. Based upon previously presented rates of upper tract findings, we found a total cost per upper tract lesion to be $19,300 for US, $34,352 for CT, and $25,000 overall. Annual spending on imaging was 4- to 5-fold spending on cystoscopy (Figure 1).

Conclusions:
Hematuria evaluation confers significant burden to the healthcare system with limited diagnostic yield of upper tract imaging. Hematuria risk factors including tobacco use, gross hematuria, and male sex were associated with higher total healthcare costs. US-based strategies limit the cost without sacrificing significant diagnostic sensitivity.
Population-Based Trends in Pathologic Features Amongst Patients Undergoing Radical Prostatectomy

Alex Hannemann*; Rodrigo Rodrigues Pessoa; Thomas Flaig; Elizabeth Molina; Tyler Robin; Eric Ballon-Landa; Kayvon Kiani; Simon P. Kim

INTRODUCTION AND OBJECTIVES: Decreases in prostate cancer screening with marked upstaging to clinically aggressive prostate cancer attributable to the USPTF Grade D recommendation has been well established. However, the impact of the subsequent change to grade C endorsing shared decision-making (SDM) is largely unknown. Herein, we aimed to assess national trends in clinical and pathologic stage amongst patients undergoing radical prostatectomy from a large population-based cohort of oncology practices in the U.S.

METHODS: We identified all patients diagnosed with prostate cancer and surgically treated with radical prostatectomy form CancerLinQ. The primary outcomes were high risk stratification at diagnosis (PSA > 20 or Gleason 8 – 10) or aggressive pathologic features following radical prostatectomy (pT3a, pT3b, pT4, pN1, or Gleason 8 – 10). Multivariable logistic regression analyses were used to identify patient covariates associated with high-risk prostate cancer at diagnosis and aggressive pathologic features after surgery.

RESULTS: During the study interval, we found 11.5 % (n = 218) and 18.2% (n = 347) were diagnosed with high-risk prostate cancer and aggressive pathologic features following radical prostatectomy amongst the 1,902 patients, respectively. Although patient covariates were not associated with higher odds of high-risk prostate cancer at diagnosis, patient race and year were associated with aggressive pathologic features on multivariable analysis. African American men had lower adjusted odds ratio for aggressive pathologic features compared to white men (OR. 0.67; p = 0.03). Compared to 2010, higher odds ratios for aggressive pathologic features occurred in 2013 (OR: 2.66; p= 0.0002), 2014 (OR: 3.08; p< 0.0001), 2015 (OR: 2.31; p = 0.001), 2016 (OR: 1.92; p= 0.006), and 2017 (OR: 1.77; p = 0.03) but was lower in 2019 (OR: 0.06; p= 0.006).

DISCUSSION: Changes to the USPTF recommendations appear to be associated with higher aggressive pathologic features starting in 2014 due to the Grade D recommendation, but reversed back in 2019 after the grade C recommendation for SDM. Further research is needed to assess the impact of guideline changes on presentation and pathologic features for men diagnosed with prostate cancer.

Funding: Schramm Foundation
USE OF ADJUVANT AND SALVAGE RADIATION THERAPY AMONGST PROSTATE CANCER PATIENTS UNDERGOING RADICAL PROSTATECTOMY: RESULTS FROM A POPULATION-BASED COHORT

Kayvon Kiani, MD; Rodrigo Rodrigues Pessoa, MD, PhD; Tyler Robin MD, PhD; Thomas Flaig, MD; Elizabeth Molina, MS; Boris Gershman, MD; Eric Ballon-Landa, MD; Justin Achua, MD; Elizabeth Kessler, MD; Simon P. Kim, MD, MPH

INTRODUCTION AND OBJECTIVES: Several randomized controlled trials (RCTs) have recently suggested equipoise between adjuvant and early salvage radiation in oncologic outcomes amongst men with adverse pathologic features after radical prostatectomy for prostate cancer. However, the impact of these findings on radiation intent are poorly described. Herein, we sought to elucidate the national trends in post-prostatectomy radiation therapy and identify characteristics associated with salvage and adjuvant radiation therapy.

METHODS: From the CancerLinQ database, we identified all patients who underwent a radical prostatectomy from 2011 to 2021 who were found to have high-risk features on final pathology (pT3a/b, Gleason of 8 or more). Adjuvant and salvage radiation therapy were defined as by initiation with PSA < 0.1 ng/dl and PSA ≥ 0.1 ng/dl, respectively: constituting the primary outcome. Bivariate and multivariable analyses were used to identify patient characteristics associated with adjuvant radiation therapy.

RESULTS: During the study interval, 1902 patients underwent radical prostatectomy and 520 received radiation therapy (27.3%). Amongst the 390 patients with available PSA values, 78.5% (n=306) of post-prostatectomy patients underwent salvage radiation therapy. Only about a fifth of patients received adjuvant radiation therapy (n=84) with a trend of deceased use over time: 4.6% in 2012 to 0.3% in 2019 (p = 0.02; for trend). On multivariable analysis, lower odds of adjuvant radiation therapy were seen in African American men compared to white men (OR: 0.36; p = 0.01) and higher odds of adjuvant radiation for pN1+ compared pN0 (OR: 2.46; p = 0.05). Only 32.7% of patients underwent salvage radiation therapy with a PSA < 0.4 ng/dl.

CONCLUSIONS: Only a minority of patients with adverse pathologic features received adjuvant radiation therapy with lower use over time. Patient race and nodal metastasis at radical prostatectomy were associated with adjuvant intent. Many patients are undergoing salvage radiation therapy higher than based on prior clinical trials.

FUNDING: Schramm Foundation
Association of Frailty Index and complications following prostate biopsy: Results from a population-based cohort of privately insured patients

Kayvon Kiani, MD*, Rodrigo Rodrigues Pessoa, MD, PhD, Simon P. Kim, MD, MPH
Boris Gershman, MD, Christopher Gonzalez, MD, Michael Bronsert, PhD, Justin Achua, MD, Alex Hannemann, MD, Rodrigo Donalisio DaSilva, MD, Brian Chapin, MD, Eric Ballon-Landa, MD, MPH

Introduction and Objective: Transrectal ultrasound (TRUS)-guided prostate needle biopsy (PNB) remains important for prostate cancer (Pca) diagnosis, yet it is not without risks. Urologists are often faced with a clinical dilemma when deciding whether to biopsy men at risk for prostate cancer who have a limited life expectancy. We sought to employ a validated claims-based frailty index (CFI) to study the association between frailty and post-biopsy complications. We hypothesized that increased frailty would be associated with adverse outcomes.

Methods: Using Market Scan, we identified all men who underwent TRUS-PNB from 2010 to 2015. Individuals were stratified by CFI into four pre-specified categories based upon existing literature: not frail, prefrail, mildly frail, moderately to severely frail. Complications (UTI, prostatitis, sepsis, urinary retention, urinary catheter insertion, and hematuria) occurring within 30 days from prostate biopsy requiring emergency room (ER) visits, clinic visits, or hospital admissions constituted the primary outcomes. Unadjusted and adjusted analyses identified patient covariates associated with complications.

Results: During the study interval, we identified 193,490 patients who underwent TRUS-PNB. The mean age was 57.6 years (SD: 5.0). In all, 5% were pre-frail, mildly frail, or moderately to severely frail. The rate of overall complications increased with CFI from 11.1% for not frail to 15.5% and 14.8% for pre-frail and mildly frail, respectively. After adjusting for select covariates including age and Elixhauser Comorbidity Index, individuals with any degree of frailty experienced a higher risk of overall complication (OR: 1.29; p < .001), clinic (OR: 1.26; p < .001) and emergency department (ED) visits (OR: 1.32; p .02), and hospital readmissions (OR: 1.41; p < .001).

Conclusions: Few TRUS-PNBs were performed in frail men within this relatively young cohort of patients. However, we showed that any degree of frailty entails a higher risk of complications, with increased risk of escalation of care on both inpatient and outpatient settings. Frailty assessment should be integrated into shared decision-making to aid at preventing potentially futile and harmful care associated with Pca screening.

FUNDING: Schramm Foundation

COI: None
WHAT DRIVES RACIAL DIFFERENCES IN PROSTATE TREATMENT?

Sera Sempson, MS², Dyvon Walker, MD², Samuel Antoine, MD², Mark Sawyer, MD³, Rachel Lenzmeier, PA-C⁴, Karisha Schall, PA-C⁴, Granville Lloyd, MD³

¹University of Colorado Anschutz School of Medicine, ²U Colorado Division of Urology, ³RMR VA/ CU DOU, ⁴Rocky Mountain Regional VA/ CU DOU

Introduction/ Background

Medical mistrust, born of systemic inequality, inequity and injustice affects health in a multimodal manner, influencing utilization and participation. In the case of benign prostatic hyperplasia treatment, African American men are impacted disproportionately, progressing to procedural treatment significantly less often than White men. While there is, undeniably, a myriad of contributing factors, we sought to explore the impact of mistrust on therapeutic inequity. Thus, we implemented the Medical Mistrust Index (MMI) and simultaneously assessed for perception of risks of prostate treatment across groups to better assess the origin of this disparity.

Methods/ Materials

After IRB approval, 129 men completed the MMI, a questionnaire investigating mistrust at various levels and the Prostate Survey, a series of questions designed to assess perceptions of sexual and urinary risks of treatment, as well as fear of prostate cancer. All participants received care through the Veterans Affairs medical center, thus controlling for differences in insurance status and access. Patients were new to the Urology Department. Responses were sorted by race and Likert scores were converted to scaled numerics; strongly disagree (1) through strongly agree (5). Scores were both summed to reflect an aggregate score and averaged. The White vs. Black and White vs. Other cohorts were compared via the Wilcoxon Rank test or T-Test secondary to determination of normality. A p-value of <0.05 denoted significance. Of note, 13 men refused to fill out either survey (5 African American, 8 White).

Results

We found that average MMI score (3.22 vs 2.89, p= 0.029) and summed total scores (22.5 vs 20.4, p= 0.024) differed significantly between Black and White. Of the 7 question MMI, responses to “health care organizations have sometimes done harmful experiments on patients without their knowledge” differed significantly between White and Black (p= 0.0004). Responses to the Prostate Survey queries were very similar between White and Black as well as White and Other (summed p= 0.92; 0.67; averaged p= 0.97; 0.65).

Conclusion

Despite significantly higher MMI scores in the Black vs. White cohort, there was virtually no difference in the perception of sexual or urinary risks of therapy, nor concerns for cancer. Thus, this study implicates medical mistrust as a major driving factor behind observed inequities in treatment patterns, far exceeding disease or procedure-specific assessment of risk. Further study as well as vigorous effort to alleviate this mistrust are critically necessary.

Funding: n/a
Title: Feasibility of Outpatient Robot Assisted Laparoscopic Prostatectomy

Authors: Kyle Szymanski*, Victor Trevisanut, Hunter LaCouture, Jonathan Zakrajsek, Paul Maroni, Austin DeRosa, Janet Kukreja

Presenting Author: Kyle Szymanski

Body of Abstract:

INTRODUCTION/OBJECTIVE
Research demonstrates the benefits of robotic-assisted prostatectomies (RARP) in regard to blood loss and post-operative recovery, there is a paucity in the literature regarding RARP as an outpatient procedure. With minimal operating room capacity during COVID-19, advances in minimally invasive surgical techniques and a relatively healthy patient population, outpatient RARP may be feasible. The aim of our study was to demonstrate the safety and feasibility of RARP as a same day outpatient procedure.

METHODS
A retrospective cohort study at a single institution was performed by four fellowship trained surgeons who routinely perform RARP. Patients were identified through billing records who underwent RARP between January 2019 and December 2021. Patients were divided into two cohorts, inpatient (one stay past midnight) and outpatient (defined as same day surgery with no stay past midnight). Individual surgeons admission necessity during COVID-19 limitations. We then extracted data using the electronic health record (EHR). The two groups were then compared using standard statistical methods for cohort studies. Statistical significance was defined as p <0.05.

RESULTS
Over a two-year period, a total of 497 RARP were performed with 139 (28%) outpatient cases. There was no difference in baseline demographics between the cohorts. There was a statistically significant difference in estimated blood loss (142 vs 102 mLs, p = < 0.001) and operative time (193 vs 180 mins, p = 0.004) in the inpatient vs outpatient cohorts, respectively. There was no significant difference in cancer stage, prostate size, or node/margin positivity between cohorts. There was a higher rate of readmissions (5% vs 0%, p = 0.007) and number of ED presentations (0.15 vs 0.05, p = 0.019) in the inpatient group. There was no difference in complication rates between the groups. Importantly, there was no significant difference in burden on the clinical staff demonstrated by no difference in number of phone calls to clinic, number of EHR messages, or opioid prescriptions on discharge.

CONCLUSIONS
Overall, our data suggests that in a well selected patient group, RARP can safely be performed as an outpatient procedure with no significant differences on clinic staff workload or oncologic outcomes. While there was no pre-defined “algorithm” to determine outpatient vs inpatient surgery, the similarity in demographics and pre-operative characteristics between the groups lends support to performing this procedure as an outpatient with inpatient admission being reserved for select patients.

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