



Illustration by Erin Moore

CLINICAL Genitourinary Prostate, Kidney, & Bladder Cancer

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- 501 Partial Versus Radical Nephrectomy: Complexity of Decision-Making and Utility of AUA Guidelines**
Rebecca A. Campbell, Jason Scovell, Nityam Rathi, Pedram Aram, Yosuke Yasuda, Venkatesh Krishnamurthi, Mohamed Eltemamy, David Goldfarb, Alvin Wee, Jihad Kaouk, Christopher Weight, Georges-Pascal Haber, Steven C. Campbell
 The AUA Guidelines for renal cancer (2017) make recommendations for radical vs. partial nephrectomy based on oncologic risk, tumor complexity, and renal functional considerations. We found that 61% of patients fit within clearly defined. Guideline™s scenarios and there was good compliance with guidelines at our center. Thirty-nine percent of patients did not fit within well-defined scenarios and thus required complex decisionmaking.
- 510 Evaluation of Provider Preferences in First-Line Metastatic Renal Cell Carcinoma: Comparison Between Dual Immunotherapy vs. Immunotherapy/Tyrosine Kinase Inhibitors**
Priyanka V. Chablani, Theodore Karrison, Walter M. Stadler
 We evaluated how oncologists decide between ipilimumab/nivolumab (IO/IO) vs. immunotherapy/tyrosine kinase inhibitor (IO/TKI) combinations for intermediate/poor risk metastatic renal cell carcinoma. We sent a 10-question survey to 294 oncologists, and received 105 responses (36% response rate). 61% chose IO/IO, 39% chose IO/TKI. Academic/GU-focused oncologists were significantly more likely to choose IO/IO than general oncologists (P = .004).
- 515 The Prognostic Significance of Homologous Recombination Repair Pathway Alterations in Metastatic Hormone Sensitive Prostate Cancer**
Aaron M. Lee, Ava Saidian, Justin Shaya, Taylor Nonato, Angelo Cabal, J. Michael Randall, Frederick Millard, Tyler Stewart, Brent Rose, Pablo Tamayo, Rana R. McKay
 Data regarding the clinical outcomes of men with metastatic hormone sensitive prostate cancer (mHSPC) who harbor homologous recombination repair (HRR) gene alterations have not been fully characterized. Here, we examine a cohort of mHSPC patients who underwent genomic sequencing to evaluate the impact of HRR gene alterations on time to castrate resistance and other outcomes. We found that the presence of an HRR gene alteration is associated with a shorter time to mCRPC.
- 524 Treatment Intensification Patterns and Utilization in Patients with Metastatic Castration-Sensitive Prostate Cancer**
Elisabeth I. Heath, Gregory E. Dyson, Frank C. Cackowski, Jason Hafron, Isaac Powell
 The IQVIA claims database provided real-world treatment patterns data in metastatic castration-sensitive prostate cancer (mCSPC). A total of 66,844 men with newly diagnosed mCSPC were included in this study, which reported initial real-world treatment patterns by providers. Both medical oncology and urology providers need to improve their treatment intensification efforts for men with mCSPC to increase their patients'™ overall survival.

- 533 Management and Health Resource Use of Patients With Metastatic Renal Cell Carcinoma treated With Systemic Therapy Over 2014-2017 in France: A National Real-World Study**
Bernard Escudier, Marie de Zélicourt, Redha Bourouina, Camille Nevoret, Antoine Thiery-Vuillemin
We describe healthcare resource use and outcomes for patients with metastatic RCC treated with systemic therapy in France (2014-2017), using the nationwide claims database. In patients with incident RCC, 62.3% had undergone nephrectomy. Firstline treatment was sunitinib for 65% of patients. Median overall survival was 20 months (28 months for localized RCC at diagnosis and 14 months for metastatic RCC).
- 543 Clinical and Patient-Reported Outcomes of Advanced Urothelial Carcinoma Following Discontinuation of PD-1/L1 Inhibitor Therapy**
Alicia K Morgans, Simrun Grewal, Zsolt Hepp, Rupali Fuldeore, Shardul Odak, Cynthia Macahilig, Alicia C Shillington, Guru Sonpavde
Real-world patterns of care and attrition of la/mUC patients eligible for systemic therapy following PD-1/L1 inhibitors are not well understood. In an ambispective chart review of patients with la/mUC after PD-1/L1 discontinuation, only one third received subsequent treatment. Prior to the introduction of novel therapies, real-world outcomes following treatment with PD-1/L1 inhibitor therapy were poor.
- 553 Temporal Characteristics of Adverse Events of Tivozanib and Sorafenib in Previously Treated Kidney Cancer**
Zeynep B. Zengin, Sumanta K. Pal, David F. McDermott, Bernard Escudier, Thomas E. Hutson, Camillo Porta, Elena Verzoni, Michael B. Atkins, Vijay Kasturi, Brian Rini
Tivozanib showed improved progression free survival compared to sorafenib with less toxicity and better tolerability in patients with previously treated metastatic renal cell carcinoma. In this study we looked at most commonly reported adverse events, duration of toxicity, and characteristics of dose modifications. Our analysis showed that treatment related adverse events were less frequent, had longer onset, and shorter duration in tivozanib arm leading to less frequent dose modifications.
- 558 Association of the Time to Immune Checkpoint Inhibitor (ICI) Initiation and Outcomes With Second Line ICI in Patients With Advanced Urothelial Carcinoma**
Rafee Talukder, Dimitrios Makrakis, Genevieve Ihsiu Lin, Leonidas N. Diamantopoulos, Scott Dawsey, Shilpa Gupta, Lucia Carril-Ajuria, Daniel Castellano, Ivan de Kouchkovsky, Tanya Jindal, Vadim S. Koshkin, Joseph J. Park, Ajjai Alva, Mehmet A. Bilen, Tyler F. Stewart, Rana R. McKay, Nishita Tripathi, Neeraj Agarwal, Naomi Vather-Wu, Yousef Zakharia, Rafael Morales-Barrera, Michael E. Devitt, Alessio Cortellini, Claudia Angela Maria Fulgenzi David J. Pinato, Ariel Nelson, Christopher J. Hoimes, Kavita Gupta, Benjamin A. Gartrell, Alex Sankin, Abhishek Tripathi, Roubini Zakopoulou, Aristotelis Bamias, Jure Murgic, Ana Fröbe, Alejo Rodriguez-Vida, Alexandra Drakaki, Sandy Liu, Eric Lu, Vivek Kumar, Giuseppe Di Lorenzo, Monika Joshi, Pedro Isaacsson-Velho, Lucia Alonso Buznego, Ignacio Duran, Marcus Moses, Pedro Barata, Guru Sonpavde, Jonathan L. Wright, Evan Y. Yu, Robert Bruce Montgomery, Andrew C. Hsieh, Petros Grivas, Ali Raza Khaki
Immune checkpoint inhibitors improve overall survival in advanced urothelial carcinoma, but response rates remain modest. We performed a multi-institutional retrospective cohort study comparing outcomes (observed response rate, progression-free, and overall survival) between patients based on time from initiation of first line platinum-based chemotherapy to second line immune checkpoint inhibitor. This study provides preliminary data that earlier resistance to platinum-based chemotherapy may be associated with shorter survival in those who receive subsequent ICI.
- 568 Incidence of Germline Variants in Familial Bladder Cancer and Among Patients With Cancer Predisposition Syndromes**
Matthew Mossanen, Amin H. Nassar, Samantha M. Stokes, Nieves Martinez-Chanza, Vivek Kumar, Pier Vitale Nuzzo, David J. Kwiatkowski, Judy E. Garber, Catherine Curran, Dory Freeman, Mark Preston, Kent W. Mouw, Adam Kibel, Toni K. Choueiri, Guru Sonpavde, Huma Q. Rana
Familial bladder cancer in a first degree relative was seen in 4.3% of bladder cancer patients and was not associated with age of diagnosis. Among patients suspected to have a familial cancer syndrome, one-third harbored a germline pathogenic/likely pathogenic variant. Genetic evaluation is important in patients who are younger, have a second cancer or family history of malignancies.

- 575 A Phase II Study of sEphB4-HSA in Metastatic Castration-Resistant Prostate Cancer**
David J. VanderWeele, Masha Kocherginsky, Sabah Munir, Brenda Martone, Vinay Sagar, Alicia Morgans, Walter M. Stadler, Sarki Abdulkadir, Maha Hussain
Blocking the EphB4-EphrinB2 pathway has efficacy in preclinical models of prostate cancer. We conducted a single arm trial using sEphB4-HSA in patients with advanced prostate cancer using a Simon 2-stage design. Fourteen patients enrolled in the study. No patient had a confirmed response, and the study was stopped for futility. sEphB4-HSA monotherapy had no anti-tumor activity in patients with mCRPC.

Case Series

- 581 Two Clinical Cases of Li-Fraumeni Syndrome and Prostate Cancer: Genetic Counseling and Clinical-Surgical Management**
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Charlotte Manogue, William Fleming, Elisa Ledet, Ellen Jaeger, Jodi Layton, Pedro Barata, Brian Lewis, Oliver Sartor

Editor's highlight

- 591 BCG Administration after Prior Radiation Treatment for Prostate Cancer**
Adri M. Durant, Yu-Hui Chang, Kassem S. Faraj, Mark D. Tyson
Prostate radiotherapy is associated with worse outcomes in bladder cancer, but the effect on BCG efficacy is not well-characterized. In our single-institution retrospective study we evaluated BCG outcomes in NMIBC patients who have undergone prostate radiotherapy compared to patients with no prior history. The risk of recurrence after BCG for NMIBC does not vary according to prior prostate radiation treatment.
- 592 Focal High-Intensity Focused Ultrasound vs. Active Surveillance for ISUP Grade 1 Prostate Cancer: Medium-Term Results of a Matched-Pair Comparison**
Giancarlo Marra, Timo Soeterik, Davide Oreggia, Rafael Tourinho-Barbosa, Marco Moschini, Armando Stabile, Claudia Filippini, Harm HE van Melick, Roderick CN van den Bergh, Paolo Gontero, Caio Pasquali, Petr Macek, Nathalie Cathala, Rafael Sanchez-Salas, Xavier Cathelineau
- 593 Clinical Factors Associated With Pathological Grade Group 1 Patients in D'Amico Intermediate-Risk Group Following Robot-Assisted Radical Prostatectomy: A Retrospective Multicenter Cohort Study in Japan (The MSUG94 Group)**
Yusuke Sugino, Takeshi Sasaki, Shin Ebara, Tomoyuki Tatenuma, Yoshinori Ikehata, Akinori Nakayama, Makoto Kawase, Masahiro Toide, Tatsuaki Yoneda, Kazushige Sakaguchi, Jun Teishima, Kazuhide Makiyama, Hiroshi Kitamura, Kazutaka Saito, Takuya Koie, Fumitaka Koga, Shinji Urakami, Takahiro Inoue
This retrospective multicenter cohort evaluated the relationship between Dâ€™Amico intermediate-risk and pathological grade group 1 (pGG1) after robot-assisted radical prostatectomy (RARP). Among intermediate-risk group prostate cancer patients, those with pGG1 have a good prognosis. The study provides guidelines for identifying patients eligible for active surveillance which is important to avoid unnecessary treatments.
- 594 Treatment of Patients with Metastatic Hormone-Sensitive Prostate Cancer: A Systematic Review of Economic Evaluations**
Rémi Pelloux-Prayer, Thomas Bataillard, Antoine Thiery-Vuillemin, Alexandre Vincent, Philippe Fagnoni, Virginie Nerich
This study aims to systematically identify and review published economic evaluations related to the treatment of mHSPC and assess their quality. These datas will help to provide a better understanding of these treatments and a better use of healthcare resources.

595 Intravesical Therapy Compared to Radical Cystectomy Among Patients With Non-Muscle Invasive Bladder Cancer Requiring Additional Treatment After Induction BCG

Christopher B. Anderson, Ling Chen, Sam S. Chang, James M. McKiernan, Jason Wright

Patients with non-muscle invasive bladder cancer (NMIBC) after intravesical BCG may face a decision between radical cystectomy (RC) and bladder preservation. Using the SEER-Medicare dataset, NMIBC patients receiving intravesical therapy within 12 months of BCG had similar survival compared to patients having RC within 12 months of BCG. Bladder preservation may be appropriate for selected patients with NMIBC after BCG.

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e453 The Clinical Significance of Maximum Tumor Diameter on MRI in Men Undergoing Radical Prostatectomy or Definitive Radiotherapy for Locoregional Prostate Cancer

Ryan Hutten, Ashley Khouri, Matthew Parsons, Alex Tward, Trevor Wilson, John Peterson, Glen Morrell, Christopher Dechet, Brock O'Neil, Bogdana Schmidt, Kristine Kokeny, Shane Lloyd, Donald Cannon, Jonathan Tward, Alejandro Sanchez, Skyler Johnson

Radiographic pretreatment tumor size is not currently included within prostate cancer staging or risk stratification. In this single-center review of 631 patients, we identify prognostic groups based on the risk group, maximum tumor diameter, and extracapsular extension. The importance of pretreatment tumor size may vary based on treatment modality.

e460 Decreased Muscle Mass Prior to and Following Chemotherapy Predicts Morbidity in Testicular Cancer Patients Undergoing Post-Chemotherapy Retroperitoneal Lymph Node Dissection

Fady J Baky, Jeffrey M. Howard, Caleb Ashbrook, Farzan Jafri, Nathan Chertack, Solomon Woldu, Vitaly Margulis, Aditya Bagrodia

The impact of decreased muscle mass on operative outcomes in the younger, healthier testicular cancer population is not well understood. We performed a retrospective review at our institution of 72 patients undergoing post-chemotherapy retroperitoneal lymphadenectomy. We found that patients with lower pre-operative muscle mass had higher rates of post-operative morbidity. Our study suggests pre-operative deconditioning may be a targetable predictor of post-operative outcomes in this population.

e465 Clinical Risk Factors Associated With Small Renal Mass Malignant Histology in a Multi-Ethnic Population Undergoing Partial Nephrectomy

Denzel Zhu, Justin Lolo, Kevin Labagnara, Deborah Schwartz, Ilir Agalliu, Ethan B. Fram, Alex Sankin, Ahmed Aboumohamed, Evan Kovac

Incidentally diagnosed small renal masses (SRM) may or may not represent kidney malignancy. Therefore, risk factors for likelihood of malignancy are needed. We reviewed 331 patients who underwent partial nephrectomy for SRM. We found that non-Hispanic Black (NHB) patients had an increased odds of having malignant SRM compared to non-Hispanic White patients. Therefore, urologists should exercise increased caution in managing SRM among NHB patients.

e473 Low-Dose Enzalutamide in Metastatic Prostate Cancer—Longevity Over Conventional Survival Analysis

Vincent Vinh-Hung, Olena Gorobets, Gilles Natchagande, Paul Sargos, Ming Yin, Nam P. Nguyen, Claire Verschraegen, Edmund Folefac

An optimal assessment of the therapeutic index is essential to manage patients with prostate cancer, especially in the geriatric age population. Our study showed strong evidence of activity in a larger (compared to our previous study) cohort of patients who started enzalutamide at 50mg dose could also be less costly to the healthcare system.

e485 Complete response in Patients With Lung-Only Metastatic Prostate Cancer: Outcome Analysis

Adam M. Kase, John A. Copland III, Qihui Zhai, Winston Tan

e490 Calibrated Regression Models Based on the Risk of Clinical Nodal Metastasis Should be Used as Decision Aids for Prostate Cancer Staging to Reduce Unnecessary Imaging

Mitchell Hayes, Yun Yu, Solange Bassale, Nicholas Chakiryan, Yiyi Chen, Shangyuan Ye, Mark Garzotto, Ryan Kopp

The risk of clinical nodal metastasis is low for all new diagnoses of prostate cancer. The National Comprehensive Cancer Network guidelines do not use a well-calibrated model that predicts this outcome to aid in decision making at staging. We develop and validate a multivariate regression model that could be used to decide on imaging with conventional modalities and reduce overimaging.

e498 Risk-Based Assessment Of the Impact Of Intravesical Therapy on Recurrence-Free Survival Rate Following Resection of Suspected Low-grade, Non-muscle-invasive Bladder Cancer (NMIBC): A Southwest Oncology Groups (SWOG) S0337 Posthoc Analysis

Nicholas J. Corsi, Edward M. Messing, Akshay Sood, Jacob Keeley, Chandler Bronkema, Nikola Rakic, Marcus Jamil, Deepansh Dalela, Sohrab Arora, Austin J. Piontkowski, Sami E. Majdalany, Mohit Butaney, Ivan Rakic, Pin Li, Mani Menon, Craig G. Rogers, Firas Abdollah

We identify novel risk groups of patients with suspected low-grade nonmuscle invasive bladder cancer (NMIBC). We utilize regression-tree analysis to characterize those who maximally benefit from intravesical chemotherapy following transurethral resection of bladder tumor (through recurrence-free survival). Cancer control outcomes vary between these risk groups, and the maximum benefit is observed in older patients with a single tumor.

e506 Percutaneous Microwave Ablation is Comparable to Cryoablation for the Treatment of T1a Renal Masses: Results From a Cross-Sectional Study

Gianpaolo Lucignani, Michele Rizzo, Anna Maria Ierardi, Andrea Piasentin, Elisa De Lorenzis, Carlo Trombetta, Giovanni Liguori, Michele Bertolotto, Gianpaolo Carrafiello, Emanuele Montanari, Luca Boeri

Percutaneous microwave ablation (MWA) of renal tumors has been less investigated compared to cryoablation (CA). In this study we showed that perioperative, functional and oncological outcomes of patients with renal tumors treated with CA and MWA were similar. Operative time was shorter for MWA.