EDITORIAL

Ten Years of Progress in Advanced Prostate Cancer at the AUA

At the American Urology Association (AUA) annual meeting in Washington, DC, in May, 2026, "The Evolving Landscape of Advanced Prostate Cancer Treatment" course will be held. This year's program developed by the AUA Office of Education and the Society of Urologic Oncology (SUO) is noteworthy as it marks its 10th year of educating urologists in the management of advanced prostate cancer at our annual meeting. Pausing to reflect on this course milestone, there have been many notable changes that have taken place over the last ten years in the management of prostate cancer.

Localized disease is now managed almost exclusively by active surveillance, robotic assisted radical prostatectomy, and various types of radiation with or without androgen deprivation therapy (ADT). Many of these changes in the management of early prostate cancer are thanks to MRI based biopsy and a whole group of new blood and urine based prostate cancer biomarkers. While sometimes still controversial, more and more professional organizations are endorsing the concept of "shared decision making" for PSA based prostate cancer screening. These have all been very significant changes in our management of early prostate cancer. However, I believe that the advances in the treatment of metastatic prostate cancer over the ten-years of our AUA/SUO program have been the most impactful in the lives of men with prostate cancer.

In 2016, I was President of the SUO and in a meeting room in San Diego during the annual AUA meeting, Drs. Gabriel Haas and Bruce Brown from Astellas made a presentation to the SUO board. Their focus was that there needed to be more education of urologists on the treatment of advanced prostate cancer. They suggested that the SUO partner with the AUA and bring urologists up to speed on treating advanced prostate cancer as more and more prostate cancer drugs were on the path to approval. The SUO board endorsed the concept and a year later in 2017, we launched the first AUA/SUO advanced prostate course at regional locations. Ultimately, the full day course has become part of the annual AUA meeting. Gabriel and Bruce saw the future of advanced prostate cancer care and the SUO board agreed.

What was known about advanced prostate cancer in 2016? Androgen deprivation therapy remained the primary treatment and was often combined with chemotherapy in advanced castrate resistant disease. In the few years before 2016, we had several new options for advanced disease with sipuleucel T, abiraterone, enzalutamide and radium 223 receiving FDA approvals. Combining some of these different medications was underway with the goal they might improve outcomes.

Genetic testing for inherited cancer risk was unknown to most urologists in 2016. Except, perhaps, unless they might have read Time Magazine's cover article about Angelina Joliet's and her public discussion of Hereditary Breast and Ovarian Cancer (HBOC). In the HBOC screening guidelines leading up to 2016, there was only a mention in the fine print about men who might be at increased risk for prostate cancer if they were related to a women with either disease. It was in 2016 there was the first mention in our specialty specific prostate cancer guidelines addressing the potential impact of screening a man for prostate cancer if he had female relative with breast or ovarian cancer. It documented how familial inherited BRCA1/2 mutations might be considered in the risk of prostate cancer when making screening decisions. At the same time, the concept of PARP inhibitors as potential prostate cancer treatment, beyond breast and ovarian cancer, was materializing in the design of clinical trials. Throughout 2017 and 2018 germ line testing for prostate cancer risk began to take hold in urology. Pembrolizumab was approved broadly based on any solid tumor with DNA damage repair or microsatellite

instability. The approvals of apalutamine and darolutamide continued to build on the unique characteristics of the early androgen receptor pathway blockers such as abiraterone and enzalutamide. There was further expansion of these and other agents in unique therapeutic combinations.

Ultimately in 2020, the first PARP inhibitors, rucaparib and olaparib, were approved for advanced prostate cancer based on a patient's specific genetic alterations, primarily with mutations in BRCA1 or BRCA2. Precision medicine had arrived in the management of metastatic castration resistant prostate cancer (mCRPC) using targeted therapies like PARP inhibitors based on genetic testing. Germ line and somatic tumor testing and the identification of dozens of potential genetic targets moved from being an essential tool in the approval of new prostate cancer drugs to being an essential element of daily patient care. The concept of using a liquid biopsy for treatment decisions came into focus. Over the last 10 years, more than a dozen drugs and unique combinations of PARP inhibitors and androgen receptor pathway blockers to treat mCRPC have been approved. So called "doublet" and "triplet" therapy, combining several agents with different mechanisms of action, has become commonplace.

Also in 2020, the first oral ADT therapy, relugolix, provided patients and providers with a new flexibility in their choice of testosterone suppression beyond injectables. Throughout all of these advances, this newest ADT approval reminds us that suppression of testosterone is the platform upon which all of these newer treatment advances are based.

In the last 10 years there has been what I like to call the "left shift". Most medications have been developed and clinical trials designed for men with the most advanced forms of prostate cancer, namely metastatic castration resistant disease. These late-stage medications are now being applied earlier, such as in the setting of metastatic hormone sensitive disease. This early treatment approach will likely have a major impact on the course of this disease.

The expansion of PSMA PET imaging has impacted all stages of prostate cancer from early disease through metastatic castrate resistance. In 2022, the next new concept, known as theragnostics, combining PSMA metastasis detection and lutetium (Lu 177) treatment, became available. The first lutetium approval in metastatic disease was for use following the failure of taxane chemotherapy. In 2025, this therapeutic radionuclide became available for metastatic disease before a man received any chemotherapy.

What is the result of all of these innovations? Significant improvement in survival. Looking back 30 or so years, a man with metastatic prostate cancer lived on average of only 28 to 36 months. Multiple clinical trials and tumor registries have demonstrated the average life expectancy of a man with metastatic disease has increased to about five to six years. All thanks to many of the improvements noted above.

While the AUA and SUO have taken much of the lead in educating urologists on the management of advanced prostate cancer, these advances are not specialty specific. The multidisciplinary care of men with prostate cancer involving urology, medical and radiation oncology, genetic counsellors and others has become the norm rather than an exception.

In closing, I extend my personal thanks to Drs. Haas and Brown for suggesting that the AUA and SUO join together to develop this well-attended annual advanced prostate cancer course. Congratulations to Drs. Mike Cookson and David Jarrad on their long-term leadership of our AUA/SUO program from the start. And lastly, Helen Scofield and the AUA Office of Education team along with our pharma supporters and faculty members deserve recognition for keeping the program on the cutting edge of advanced prostate cancer care over the last decade.

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