Medical Education

2010 Genitourinary Cancers Symposium Highlights for Internists

Michelle Lau, MD

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This year's Genitourinary Cancers Symposium, co-sponsored by the American Society of Clinical Oncology (ASCO), the American Society for radiation Oncology (ASTRO) and the Society of Urologic Oncology (SUO), was held in San Francisco, March 5-7. The symposium brought together specialists from different disciplines to discuss the diagnosis and management of genitourinary cancers. In the spirit of multidisciplinary management of genitourinary cancer patients, this brief communication will highlight some of the notable presentations relevant for internists and primary care physicians.

For prostate cancer diagnosis, the two oral presentations on TMPRSS2:ERG urine testing are noteworthy. TMPRESS:ERG is a gene fusion product between the androgen-regulated gene TMPRSS2 and the ETS transcription family member ERG. It has been identified as a common molecular event in prostate cancer development and is reported to be present in 54% of prostate cancer.[1] In both presentations, post digital rectal exam urine sample were used to test for the fusion biomarker. Dr. James B. Amberson, from DIANON Systems in Connecticut, reported his group's finding that the novel urine test predicted positive prostate biopsy results more accurately than prostate specific antigen (PSA).[2] It has a specificity of 89% but a sensitivity of only 39%. Combining the urine test with other clinical predictors led to further improvement in diagnostic accuracy. In the other study reported by Dr. John Wei from University of Michigan in Ann Arbor, TMPRESS:ERG score from the urine test was shown to associate with prostatectomy Gleason score, tumor volume and Epstein criteria for significant cancer.[3] Unlike PSA, TMPRESS:ERG score was shown not to be correlated to prostate weight. Putting the two results together, TMPRESS:ERG urine test may eventually be used in addition to PSA to screen prostate cancer in the primary care setting, and it has the potential to help patients avoiding unnecessary biopsies.

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Michelle Lau, MD
Department of Hematology/Oncology
Beth Israel Deaconess Medical Center
330 Brookline Ave, Shapiro 9th Floor
Boston, MA 02115
Tel: 617-667-9289
Email: mlau1@bidmc.harvard.edu

Further studies will be needed to determine if the new urine test will be able to detect aggressive tumors better than the existing ones. The urine test is not yet commercially available.

In the educational session for renal cell cancer, Dr. Paul Russo from Memorial Sloan-Kettering Cancer Center in New York, discussed the medical implications of partial vs. radical nephrectomy for patients with small, asymptomatic renal mass.[4] While both procedures produced highly favorable oncologic outcomes, radical nephrectomies were more likely to result in chronic kidney failure and cardiovascular events. Despite the strong support of partial nephrectomy in this setting by the American Urological Association, radical nephrectomy still accounts for more than 80% of operations for renal tumors smaller than 4cm. In addition to paying attention to the long-term cardiovascular management for patients who had radical nephrectomy, this presentation also suggests a potential role for primary care physicians to initiate dialogues with urologists, and to help counsel patients if both options are offered by the urologists.

In the arena of metastatic renal cell cancer, Dr. Brian Rini from Cleveland Clinic presented his group's findings that renal cell cancer patient with hypertension on sunitnib was associated with better clinical outcome.[5] In other words, hypertension may serve as a biomarker of sunitinib response. Overall survival for patients with maximum systolic blood pressure greater than 140 was 30.5 months compared to 7.8 months for the group with less than 140. Moreover, there was no difference in overall survival whether hypertension was managed by hypertensive medications or dose reduction in sunitinib. With this information, managing hypertension and reassuring patients should be a common goal for both the patient's primary care physician and oncologist.

References

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