Predictive Biomarkers in Advanced Kidney Cancer

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Abstract (300 word limit)

Biomarkers are a quantifiable characteristic of biological processes that have the influence to predict outcomes and treatment responses in the modern era of precision and personalized medicine; use has become near commonplace in both the research and clinical setting. However, there has been little use of biomarkers in kidney cancer to guide management in the clinical setting, unlike bladder, prostate, and testicular cancers; the arrival of novel systemic therapies over the past two decades has changed this.

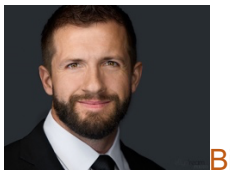
During the golden era of oncologic treatment, there has been a shift in how clinicians treat advanced and metastatic renal cell carcinoma. Different therapies now play a significant role in treatment, with immune checkpoint inhibitors, tyrosine kinase inhibitors, and vascular endothelial growth factor inhibitors playing an integral part in the treatment course. Despite this, outcomes for RCC are still poor; disease courses can be unpredictable, and responses can be variable.

This talk aims to discuss what is known with biomarkers in kidney cancer, which can help guide treatment and prognosis.

Recent Publications (minimum 5)

1. Wang X, Teng F, Kong L, Yu J. PD-L1 expression in human cancers and its association with clinical outcomes. Onco Targets Ther. 2016;9:5023-39. doi:10.2147/OTT.S105862
2. Herbst RS, Soria JC, Kowanetz M, et al. Predictive correlates of response to the anti-PD- L1 antibody MPDL3280A in cancer patients. Nature. Nov 27 2014;515(7528):563-7. doi:10.1038/nature14011
3. Raimondi A, Sepe P, Zattarin E, et al. Predictive Biomarkers of Response to Immunotherapy in Metastatic Renal Cell Cancer. Front Oncol.2020;10:1644. doi:10.3389/fonc.2020.01644
4. Patel SP, Kurzrock R. PD-L1 Expression as a Predictive Biomarker in Cancer Immunotherapy. Mol Cancer Ther. Apr 2015;14(4):847-56. doi:10.1158/1535-7163.MCT-14- 0983
5. Choueiri TK, Figueroa DJ, Fay AP, et al. Correlation of PD-L1 tumor expression and treatment outcomes in patients with renal cell carcinoma receiving sunitinib or pazopanib: Biomarkers in Kidney Cancer results from COMPARZ, a randomized controlled trial. Clin Cancer Res. Mar 1 2015;21(5):1071-7. doi:10.1158/1078-0432.CCR-14-1993

Photograph



Biography (150 word limit)

Shane Kronstedt is a medical student at Rutgers Robert Wood Johnson Medical School who performs extensive research in urologic trauma and reconstruction for military and civilian populations. He also pursues research in urologic oncology, with a focus in bladder and kidney cancer. His goal is to improve quality of life and outcomes for military veterans after traumatic injuries from war.

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Notes/Comments: