Ethics Approval The study was approved by Wake Forest University Institution's Ethics Board, approval number IRB00056249.

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223 RACIAL DIFFERENCES IN OUTCOMES FOR METASTATIC RENAL CELL CARCINOMA (MRCC) PATIENTS MANAGED ON IMMUNE-CHECKPOINT INHIBITOR (ICI) THERAPY

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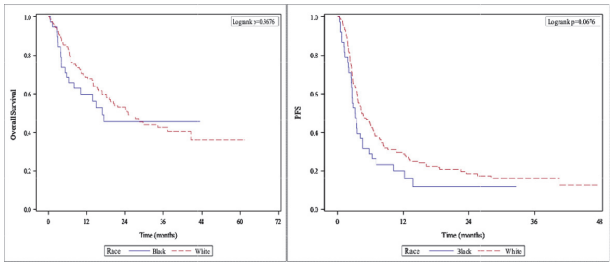
Background Immune checkpoint inhibitors (ICIs) have increased in prevalence for the treatment of metastatic clear-cell renal cell carcinoma (mccRCC) in recent years given their efficacy and favorable toxicity profile. However, there has been insufficient investigation in the literature of how clinical outcomes differ on the basis of race. In this paper, we investigated differences in clinical outcomes between African American (AA) and Caucasian mRCC patients treated with ICI therapy.

Methods We performed a retrospective study of 198 patients with mRCC who received ICI at the Emory Winship Cancer Institute from 2015–2020. Clinical outcomes were measured by overall survival (OS), progression-free survival (PFS), and clinical benefit (CB). OS and PFS were calculated from ICI-initiation to date of death and radiographic or clinical progression, respectively. CB was defined as a best radiographic response of complete response, partial response, or stable disease maintained for at least 6 months per response evaluation criteria in solid tumors version 1.1. The association of self-identified race with OS and PFS was generally modeled by Cox proportional hazards model. Univariable and multivariable logistic regression models were used for binary outcomes of CB. The univariate association of immune-related adverse events (irAEs) and non-clear-cell RCC (nccRCC) with race was assessed using Chi-square test.

Results Our cohort was made up of 38 AA (19%) and 160 Caucasian (81%) patients. Most of the patients were diagnosed with ccRCC (78%) and more than half received PD-1 monotherapy (57%). Most patients were international mRCC database consortium (IMDC) intermediate (57%) or poor-risk (25%) groups. AA patients displayed significantly shorter PFS (HR=1.52, 95% CI: 1.01–2.3, p=0.045) and trended towards decreased CB (OR=0.51, 95% CI: 0.22–1.17, p=0.111) in MVA (table 1). There was no difference in OS (HR=1.09, 95% CI: 0.61–1.95, p=0.778) between the two racial groups in MVA (table 1). On Kaplan-Meier method, AA patients had shorter median OS (17 vs 25 months, p=0.3676) and median PFS (3.1 vs 4.4 months, p=0.0676) relative to Caucasian patients (figure 1). Additionally, AA patients more commonly had nccRCC compared to Caucasian patients (41.7% vs 17.5% nccRCC, p-0.002). AA patients also trended towards a lower incidence of irAEs compared to Caucasian patients in UVA (23.7% vs 35.8%, p=0.153).

Abstract 223 Table 1
*MVA controlled for age, race, gender, IMDC risk group, number of prior lines of therapy, PD-1 monotherapy, and ccRCC
**statistical significance at alpha < 0.05

Variable (Race)	OS		PFS		CB	
	HR (CI)	p-value	HR (CI)	p-value	OR (CI)	p-value
African American (Black) [n=38]	1.09 (0.61-1.95)	0.778	1.52 (1.01-2.3)	0.045**	0.51 (0.22-1.17)	0.111
	Median OS: 17 months		Median PFS: 3.1 months		CB Rate: 35%	
Caucasian (White) [n=160]	1	-	1	-	1	-
	Median OS: 25 months		Median PFS: 4.4 months		CB Rate: 47%	



Abstract 223 Figure 1 African-American (black) and Caucasian (white) for OS (left panel) and PFS (right panel)

Conclusions In this group of mRCC patients treated with ICI, African American patients had significantly shorter PFS compared to Caucasian patients. These findings suggest race could play a role in the management of late-stage mRCC. Larger, prospective studies are needed to validate these findings.

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Trial Registration Not applicable.

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Consent Not applicable.

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224 OUTCOMES OF STAGE IV MELANOMA IN THE ERA OF IMMUNOTHERAPY: A NATIONAL CANCER DATABASE (NCDB) ANALYSIS

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Background Immunotherapy (IO) has revolutionized the treatment landscape for metastatic melanoma and is now the mainstay of treatment since the approval of ipilimumab in 2011 and anti-PD-1 therapies (nivolumab and pembrolizumab) in 2015. The majority of data stems from trials that have