Title: Implications of AS eligibility among African American Men: Analysis of the Pennsylvania Urologic Regional Collaborative database

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Introduction: Due to the disparate outcomes of prostate cancer (PCa) with regards to risk stratification and management, the implications of active surveillance (AS) among black men remains controversial. Utilizing the Pennsylvania Urologic Regional Collaborative (PURC) database, we investigated radical prostatectomy (RP) outcomes in AS eligible men with special attention to black race.

Methods: Men with biopsy GG 1-2 PCa who underwent RP were identified within the PURC database. Patient demographics, clinical T-stage, PSA, biopsy core data and RP pathology were analyzed with serial adjustments of increasing GG, cT, PSA, and # positive cores. Primary outcomes were RP GG score 3-5, pT3-4, pN+ or composite adverse surgical pathology (CASP), which was defined as any of the prior 3 adverse features.

Results: 1027 patients met inclusion criteria (430 GG1, 597 GG2). On multivariate analysis, age, biopsy GG, and PSA level were strong predictors of CASP; cT and # positive cores were weaker predictors; race was not a predictor (Table 1). Utilizing strict NCCN and AUA criteria, risk of CASP for the entire cohort and black patients (n=220) were similar at 17.71-18.27% and 17.65-18.75%, respectively (Table 2). With current AS criteria, 60% of men potentially harbor GG2 disease, while only 8% of men with GG2 disease on biopsy get downgrade to GG1 on final pathology.

Conclusions: Our findings suggest that the risk of CASP among black men is similar to that of the general cohort. Further studies with biomarkers and longer follow-ups are necessary to further characterize low-risk disease in black men.

Table 1: Multivariable logistic regression analysis indicating predictors of CASP

Variables		N (%)	OR (95% CI)	P-value
Age		1027 (100.0)	1.03 (1.01-1.05)	0.004
Race	Caucasian	752 (73.2)	Reference	
	Black	220 (21.4)	0.94 (0.67-1.32)	0.730
	Asian	11 (1.1)	0.70 (0.18-2.82)	0.618
	Other	25 (2.4)	0.63 (0.25-1.59)	0.330
	Unknown	19 (1.9)	0.79 (0.28-2.22)	0.653
PBx GG	1	899 (87.5)	Reference	
	2	128 (12.5)	2.52 (1.86-3.42)	<0.001
cT Stage	1	430 (41.9)	Reference	
	2	597 (58.1)	0.68 (0.45-1.05)	0.079
PSA, ng/dL	<5	510 (49.7)	Reference	
	5.1-10	401 (39.0)	1.27 (0.95-1.71)	0.110
	11.1-15	64 (6.2)	2.25 (1.28-3.94)	0.005
	>15	52 (5.1)	2.94 (1.58-5.47)	0.001
# of positive PBx cores (of 12 cores)	1	187 (18.2)	Reference	
	2	173 (16.8)	0.93 (0.56-1.55)	0.785
	3	136 (13.2)	1.76 (1.05-2.95)	0.031
	4	137 (13.3)	1.43 (0.85-2.40)	0.182
	5	105 (10.2)	1.46 (0.84-2.55)	0.185
	6	101 (9.8)	2.06 (1.18-3.59)	0.011
	>6	188 (18.3)	1.97 (1.22-3.18)	0.006

Table 2: CASP with current AS eligibility criteria

Guidelines	Risk stratification	Criteria	N	CASP (%)	
				Entire cohort (n=1027)	Black patients (n=220)
NCCN	Very-low, Low	GG1, cT1, PSA≤10, ≤3 positive biopsy cores	288	17.71	18.75
	Favorable intermediate	GG2, cT2, PSA≤20, ≤50% positive biopsy cores	1022	33.37	35.02
AUA	Very-low, Low	GG1, cT1, PSA≤10, ≤34% positive biopsy cores	301	18.27	17.65
	Favorable intermediate	GG1, cT2, PSA≤20	430	20.47	20.78
		GG2, cT2, PSA≤10	1013	33.46	35.38