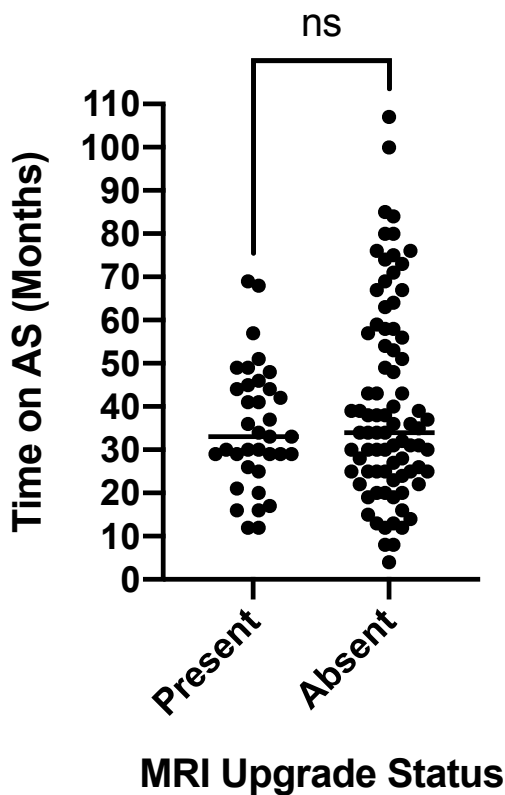


APPENDIX



Supplemental Figure 1. Time on active surveillance.

**Supplemental Table 1:** Patient Demographics

		MRI Upgrade		<i>p</i>
		Absent	Present	
N		85	36	
Age, Mean (SD)		66.5 (6.6)	66.7 (7.6)	0.92
Follow-up Time (mos), Mean (SD)		44.8 (24.5)	49.8 (23.8)	0.31
MRI no., Median (IQR)		2.0 (2.0, 3.0)	2.0 (2.0, 3.0)	0.49
Time between MRI, Median (IQR)		13.0 (12.0, 17.0)	13.5 (11.5, 17.5)	0.81
Prostate Volume, Median (IQR)		55.0 (38.0, 74.3)	48.8 (42.0, 83.4)	0.89
Biopsy Upgrade Present		35 (41%)	20 (56%)	0.15
PSA at Diagnosis, median (IQR)		5.0 (4.1, 7.3)	5.4 (4.3, 6.4)	0.83
Risk Category	Low Risk	74 (87%)	28 (78%)	0.20
	Favorable-Intermediate	11 (13%)	8 (22%)	
Grade Group at Diagnosis	1	79 (93%)	30 (83%)	0.11
	2	6 (7%)	6 (17%)	

Supplemental Table 2: Biopsy Progression Demographics

		Biopsy Progression		<i>p</i>	Test
		Absent	Present		
N		66	55		
Age, Mean (SD)		66.2 (7.1)	67.1 (6.7)	0.48	Two sample t test
Follow-up Time (mos), Mean (SD)		46.4 (22.2)	46.2 (26.8)	0.97	Two sample t test
MRI no., Median (IQR)		2.0 (2.0, 3.0)	2.0 (2.0, 3.0)	0.59	Wilcoxon rank-sum
Time between MRI, Median (IQR)		14.0 (12.0, 16.0)	13.0 (10.0, 18.0)	0.37	Wilcoxon rank-sum
Prostate Volume, Median (IQR)		59.4 (42.7, 90.0)	45.0 (39.0, 71.0)	0.18	Wilcoxon rank-sum
MRI Upgrade		16 (24%)	20 (36%)	0.15	Pearson's chi-squared
PSA at Diagnosis, Median (IQR)		4.7 (4.0, 6.5)	5.8 (4.4, 7.2)	<b>0.023</b>	Wilcoxon rank-sum
Risk Category at Diagnosis	Low Risk	53 (80%)	49 (89%)	0.19	Pearson's chi-squared
	Favorable-Intermediate	13 (20%)	6 (11%)		
Grade Group at Diagnosis	1	57 (86%)	52 (95%)	0.13	Pearson's chi-squared
	2	9 (14%)	3 (5%)		

**Supplemental Table 3 :** Odds ratio for pathologic biopsy progression from multivariable logistic regression model.

Patient characteristic	OR	[95% CI]	
Age	0.355	0.9485697	1.158451
MRI upgrade <sup>a</sup>	0.193	0.6333339	9.640318
PSA at diagnosis (ng/ml)	0.188	0.8844549	1.868772
Time between MRIs (months)	0.072	0.8115922	1.009095
Follow up time (months)	0.971	0.9672346	1.035191
Risk category at diagnosis			
Favorable intermediate <sup>b</sup>	0.034	0.0008479	0.7598869
Grade group at diagnosis			
GG2 <sup>c</sup>	0.578	0.0762105	101.0466
Last PSA (ng/ml)	0.109	0.9663417	1.407611
Time on AS (months)	0.069	0.9267258	1.002825
Prostate volume (ml)	0.053	0.957589	1.000277
Number of biopsies <sup>d</sup>	0.04	1.047951	6.915713
Number of MRIs <sup>d</sup>	0.697	0.4707631	3.086892

<sup>a</sup> Defined as in increase in PI-RADS score of the index lesion, as interpreted by experienced GU radiologists.

<sup>b</sup> Compared to low-risk disease, defined per NCCN guidelines.

<sup>c</sup> Compared to grade group 1 disease, Gleason 3+3=6

<sup>d</sup> Defined as a continuous count (example, 2 biopsies, 2 MRIs).

Supplemental Table 4: MRI upgrade contingency table

MRI Upgrade	Pathologic Progression	
	Biopsy Progression	No Biopsy Progression
Present	20	16
Absent	35	50

Supplemental Table 5 : High Suspicion/Low Suspicion lesion contingency table

MRI Lesion	Pathologic Progression	
	Biopsy Progression	No Biopsy Progression
High Suspicion	43	33
Low Suspicion	12	33