



# ABSTRACT ID# 18-6490: The Characteristics of Prostate Cancer on Final Pathology in Men Undergo Radical Prostatectomy with a Negative Multiparametric Magnetic Resonance Imaging

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## BACKGROUND

- Despite advancements in radiological imaging of the prostate with multi parametric-MRI, clinically significant cancer lesions can still be missed.

## STUDY OBJECTIVES

- To characterize the final pathology in men with negative mpMRI findings for PI-RADS 3 or greater, but positive findings of prostate adenocarcinoma after prostatectomy.

## STUDY METHODS

- An institutional retrospective study of all patients who received a prostate mpMRI for clinical suspicion of prostate cancer from 2015 to 2017 was performed.
- Patients who had a negative mpMRI for PI-RAD lesions of 3 or greater were identified and of this sub-population, patients who underwent a prostatectomy the final pathology were analyzed.

## RESULTS

- 592 men had prostate mpMRI performed between 2015 and 2017, 100 of these men had a prostatectomy. 16 men (11 white, 3 black, 2 other) had negative mpMRI for PIRAD 3 or greater but had a prostatectomy with 14 of them having a final pathology positive for prostate adenocarcinoma and two had adenoma.
- The mean (range) for age, PSA, and PSA density was 60 (40 - 72) years, 6.6 (2.3 - 22) ng/mL and 0.15 (0.07- 0.15) ng/mL/cm<sup>2</sup>, respectively.
- On final surgical pathology, 11/14 (79%)men had prostate cancer of Gleason 7 or greater (8 had a Gleason 7 (3+4), 1 had Gleason 7 (4+3), 1 Gleason 8 (4+4), 1 Gleason 8 (3+5).
- Five men (36%) upgraded on surgical pathology from prostate biopsy pathology
- Five men had extra prostatic extension including 1 who had seminal vesicle extension and 2 had positive margins.

TABLE 1: Analysis of the patients

ID	ethnicity	Age	PIRAD-2	PIRAD-3 or greater	Final Pathology Stage	Gleason Score	SV invasion	Extra-prostatic extension	Positive margin	LN Status
1	N/A	72	N	N	pT2c	3+4	N	N	N	PNX
2	N/A	60	N	N	pT3a	3+5	N	Y	Y	PNO
3	W	69	N	N	Adenoma	NA	N	N	N	PNX
4	AA	50	N	N	pT3a	4+4	N	Y	N	PNO
5	W	54	N	N	pT2c	3+3	N	N	N	PNX
6	W	73	N	N	Adenoma	NA	N	N	N	PNX
7	W	50	N	N	pT2a	3+4	N	N	N	Pn0
8	W	71	Y	N	pT2a	4+3	N	N	N	PNO
9	AA	60	Y	N	pT3a	3+4	N	Y	N	PNX
10	AA	65	Y	N	pT2a	3+4	N	N	N	PNO
11	W	56	Y	N	pT2a	3+3	N	N	N	PNX
12	W	59	y	N	pT2a	3+4	N	N	N	PNO
13	W	54	y	N	pT2c	3+3	N	N	N	PNO
14	W	68	y	N	pT3a	3+4	N	Y	Y	PNX
15	W	63	Y	N	pT3b	3+4	Y	N	N	PNO
16	W	54	Y	N	pT3a	3+4	N	Y	N	PNO

## CONCLUSIONS

79% of men with prostate cancer diagnosis and negative mpMRI had clinically significant prostate cancer on final surgical pathology. Our study underscores the importance of obtaining a prostate biopsy despite negative mpMRI findings in patients with suspicion for prostate cancer.