

# Rethinking Contralateral Systemic Biopsies: Is Routine Sampling Necessary in MRI-Targeted Prostate Cancer Diagnosis?

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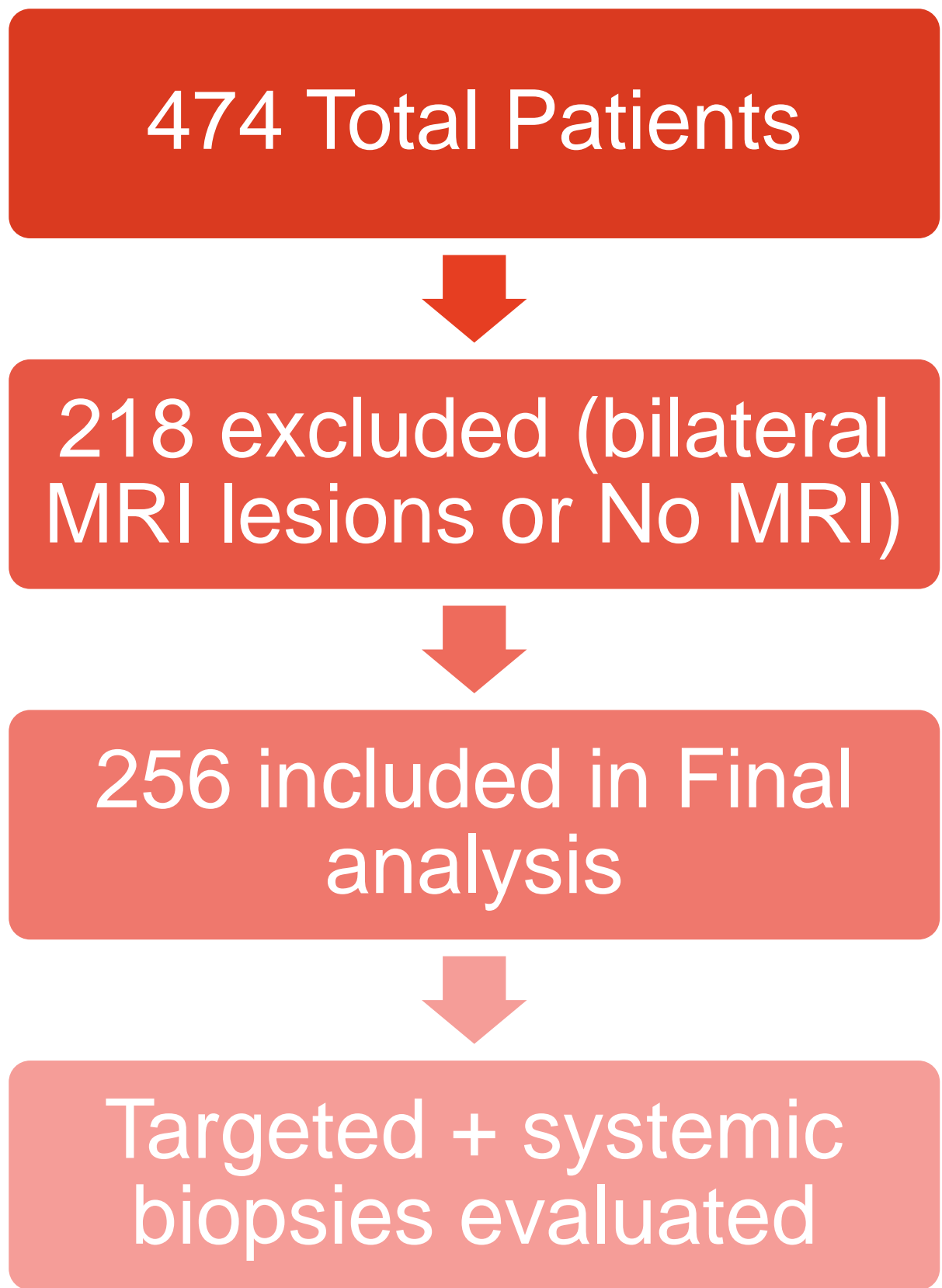
## Introduction

Transperineal Template biopsy of prostate is quickly displacing transrectal biopsies as a standard of care for prostate cancer diagnosis. However, the number of cores needed for diagnosis is hotly debated as the biopsies need to strike the balance between the diagnosis of clinically significant prostate cancer (CsPCa) versus finding Clinically Insignificant Prostate cancer(CiPCa) which leads to overdiagnosis and overtreatment.

In this study we assessed the need for performing contralateral systemic biopsies in men with suspicious MRI lesions undergoing Local anaesthetic Transperineal Template (LATP) in an outpatient setting.

## Materials and Methods

A prospectively maintained database with 474 men who underwent Local Anesthetic Transperineal Template Biopsy (LATP) using Precision Point™ between January 2024 and November 2024 was used for the study. All men with bilateral MRI lesions and no prebiopsy MRI (n=218) were excluded from the analysis leaving 256 cases. At least Four targeted cores from MRI identified lesion and at least 2 cores from all other prostate zones were obtained. The primary objective was the rate of identification of prostate cancer and CsPCa in contralateral systemic biopsies in men with NEGATIVE MRI targeted biopsies. The secondary objective was calculating the positive predictive value (PPV) of MRI scans based on PIRADS scores.



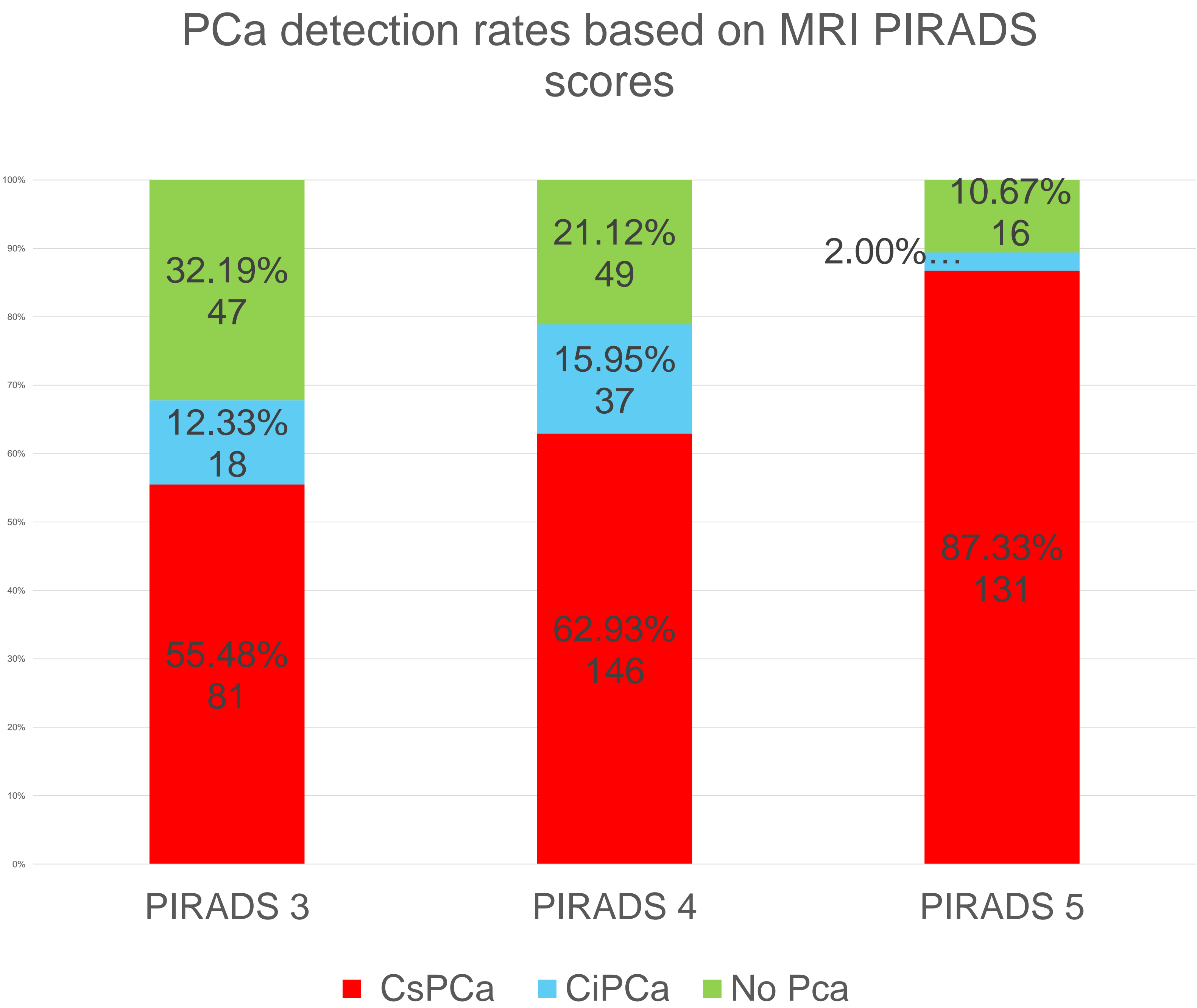
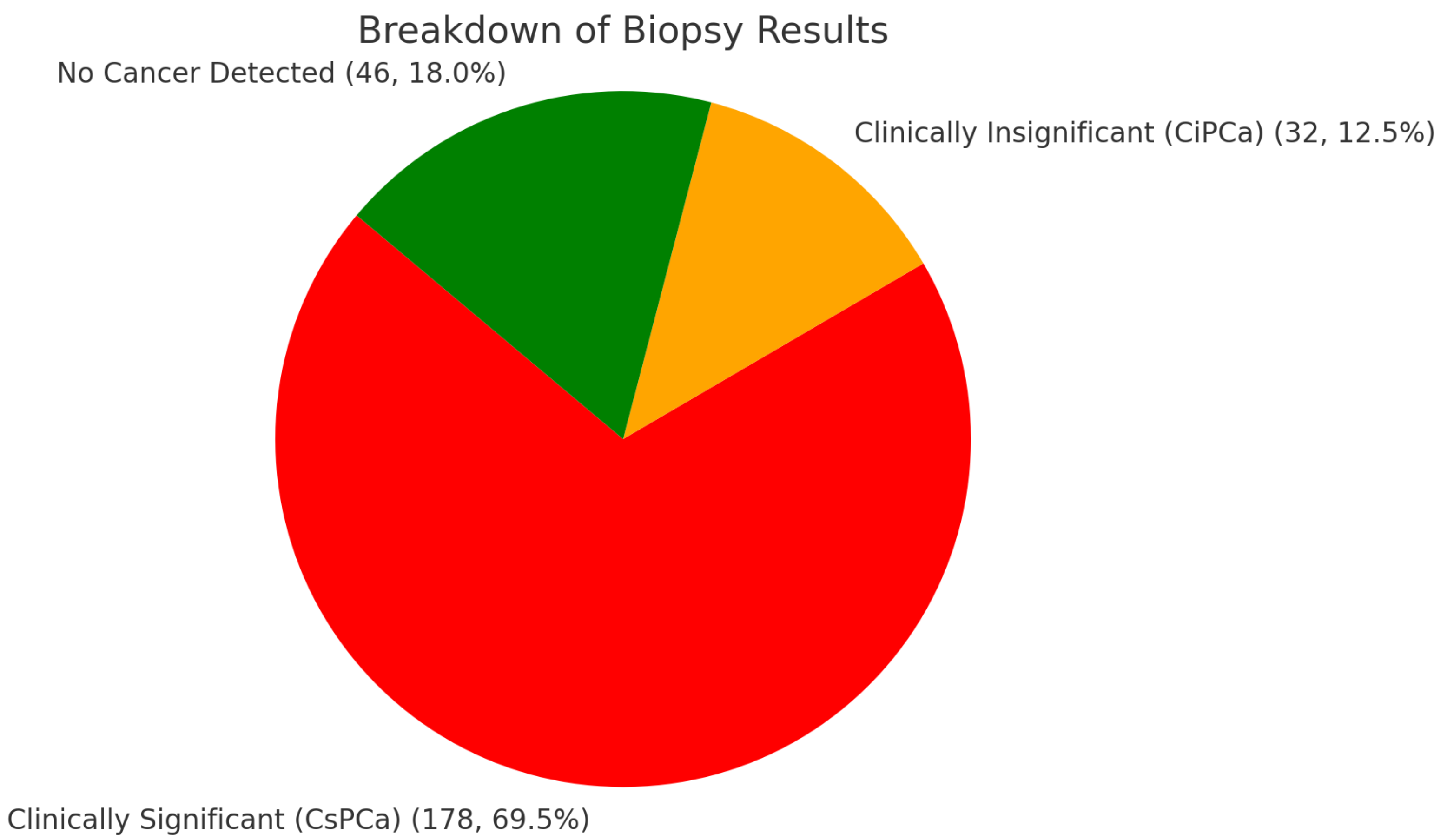
clinical characteristics	Total	No PCa	CiPCa	CsPCa
age, years, median	68(42-87)	64(42-80)	65(51-77)	68(46-87)
PSA level, ng/mL, median	9.2 (0.05-1011)	8.59(0.05-26.1)	9.45(3.24-25.1)	22.07(0.95-1011)
PSA density, ng/mL/mL, median	0.21 (0.04-20.9)	0.22(0.04-3.96)	0.17(0.09-0.36)	0.53(0.05-20.9)

## References

Boesen, L., Nørgaard, N., Bisbjerg, R. and Løgager, V. (2025), Clinical value of contralateral biopsies in men with unilateral MRI foci undergoing targeted biopsy. BJU Int, 135: 465-472. <https://doi.org/10.1111/bju.16579>

## Results

Overall Prostate cancer and CsPCa were identified in 210/256(82%) and 178/256(69.5%) with a median age of 68 years and median PSA level of 9.22. Only 6 cases out of 256 (2.34%) had any prostate cancer identified on the contralateral side with negative biopsies on the MRI positive side. Out of these, 4 had Gleason 3+3=6 disease while only 2 (0.78%) had Gleason 3+4=7 disease. The PPV of MpMRI for identifying CsPCa was 55.48%, 62.93% and 87.33% for PIRADS 3, 4 and 5 lesions, respectively.



## Conclusion

Adding Contralateral systemic biopsies in men with identifiable lesion on MRI adds limited additional value for prostate cancer detection and therefore can safely be omitted without much risk of missing clinically significant prostate cancer.

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Daniël L. van den Kroonenberg,et al,  
The Impact of Omitting Contralateral Systematic Biopsy on the Surgical Planning of Patients with a Unilateral Suspicious Lesion on Magnetic Resonance Imaging Undergoing Robot-assisted Radical Prostatectomy for Prostate Cancer, European Urology Open Science,Volume 63,2024,Pages 13-18,ISSN 2666-1683, <https://doi.org/10.1016/j.euros.2024.03.006>.