

The diagnostic accuracy of day case cognitive targeted transperineal biopsy of the prostate using multiparametric MRI.

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INTRODUCTION

The introduction of day case transperineal biopsy clinics in the pathway for prostate cancer diagnosis, has led to investigate the accuracy and correlation of Multiparametric MRI (mpMRI) of the prostate and cognitive targeted transperineal biopsy. Scoring systems PI-RADS and LIKERT were used in the reporting of the mpMRI scans by radiologists.

METHODOLOGY

Patients referred to the local anaesthetic transperineal biopsy day case clinic during the period of 26/4/23 to 8/3/24 were included in the database for retrospective analysis.

RESULTS

90 patients with median age of 68 years, were included in this study undergoing an mpMRI of the prostate and PSA before attending the prostate biopsy clinic. Clinically significant prostate cancer was at least a Gleason score of 3+4 as agreed widely in published literature.

The results showed that of the patients with an mpMRI score of 3, 28% had clinically significant prostate cancer, 60% with an mpMRI score of 4, and of the patients with mpMRI score of 5, 92% had a Gleason score of 7 or above.

	Clinically significant prostate cancer	Benign biopsy	Total	Positive Predictive Value	National Positive Predictive Value
mpMRI score 2	0	1	1		
mpMRI score 3	2	5	7	28%	12%
mpMRI score 4	20	13	33	60%	60%
mpMRI score 5	45	4	49	92%	83%
Total	67	23	90		

CONCLUSION

This introduction of the diagnostic pathway for prostate cancer including multiparametric MRI of the prostate and cognitive transperineal biopsy of the prostate has resulted in the demonstration of similar yields to diagnose prostate cancer when compared with previous literature¹. This guarantees appropriate counselling and prompt management of the patients undergoing these investigations.

REFERENCE

Kasisvisvanathan, Veeru et al. "MRI-Targeted or Standard Biopsy for Prostate-Cancer Diagnosis." The New England Journal of medicine vol. 378,19 (2018): 1767-1777. doi:10.1056/NEJMoa1801993