

MAPPED - Prevalence of MRI detectable lesions in low-intermediate risk prostate cancer

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Introduction: Dutasteride has been associated with a reduction in the period prevalence (REDUCE) and progression rates (REDEEM) of prostate cancer compared to placebo. MRI in Primary Prostate Cancer after Exposure to Dutasteride (MAPPED) is a randomised placebo controlled trial to assess the effect of this 5 alpha reductase inhibitor on the MR-measurable volume of prostate cancer. Screening men for this study has given insight into the prevalence of MRI detectable lesions for a low to intermediate risk prostate cancer population.

Methods: Between July 2010 and January 2012, men referred to our institution with low to intermediate risk prostate cancer (PSA<15, Gleason 3+3/4, clinical T1c–T2a), were screened on the basis of a 1.5T multi-parametric MRI (mpMRI). The inclusion criteria were a >/ 0.2cc measurable lesion on T2-weighted images.

Results: 92/137 (67%) of men screened were excluded on the basis of tumour volume <0.2cc on the T2-weighted sequence. 74/92 (80%) of these screen failures had biopsy detected Gleason 3+3 (median PSA 5.9; range 0.68-13.96), and 18/92 (20%) had Gleason 3+4 (median PSA 7; range 3.1-11.4) disease.

Conclusions: Assessment of the screening log for an MR based study of men with low to intermediate risk disease on biopsy showed that only one third of men have MR visible disease on T2 weighted imaging. These findings show the need for additional MR parameters in the use of MRI in low to intermediate risk prostate cancer.