

## Clinical significance of prostate cancer identified by transperineal standard template biopsy in men with nonsuspicious multiparametric magnetic resonance imaging

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### Study Overview:

Retrospective analysis of transperineal prostate biopsy database at Massachusetts General Hospital examining cancer detection rates in men with nonsuspicious versus suspicious mpMRI findings.

### Methodology:

- N=516 men who underwent pre-biopsy mpMRI and subsequent transperineal standard template biopsy (09/2019 – 02/2022)
  - Suspicious group (n=301): PI-RADS $\geq$ 3 lesions; received 20-core standard biopsy plus targeted biopsy
  - Nonsuspicious group (n=215): PI-RADS $\leq$ 2; received 20-core standard biopsy only
- Clinical parameters: Age, prostate volume, PSA, PSA density (PSAD)

### Results:

- Nonsuspicious group: 43.3% had any prostate cancer and 14.9% had clinically significant cancer (GG2 or greater)
- Suspicious group: 74.1% had PCa and 38.9% had csPCa
- Only independent predictor of csPCa in nonsuspicious group: PSAD  $>0.15$  ng/ml/cc

### Conclusions:

Despite negative mpMRI, 15% of men harbor clinically significant prostate cancer, demonstrating that negative mpMRI cannot reliably exclude aggressive disease. The study emphasizes that systematic 20-core transperineal biopsy should be considered even after negative mpMRI, particularly in patients with elevated PSAD ( $>0.15$  ng/ml/cc).

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