



AB128. 112. Prostate MR: 'the MAN-ogram', no longer just a cancer staging tool

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Background: The advent of Prostate Imaging Reporting and Data System (PIRADS) v2 has allowed magnetic resonance (MR) of the prostate to extend its role into triaging patients suspected of prostate cancer, from its previous use as a staging study in established disease. We aimed to reveal its altered perception in a modern setting.

Methods: Five hundred consecutive MRIs performed from June 2017 to January 2018 were analysed in a retrospective review. Patients going for initial diagnosis were split into 16 subgroups, depending on their prostate specific antigen (PSA) status, digital rectal exam (DRE) status, and demographics. Staging scans were split into their biopsy diagnosed cancer grade, and restaging above Gleason score

6 on diagnosis.

Results: Significant differences were observed. Amongst the diagnostic groups, most (n=66) were age <70, PSA >6, Neg DRE and previous negative biopsy; 56.1% showed no suspicious lesion (NSL), 42.4% an intra-prostatic lesion (IPL) and 1.5% extra prostatic spread (EPS). Overall in previously non-diagnosed patients, 51.4% showed NSL, 45.3% IPL and 3.3% EPS (n=204). In staging scans, 26.5% showed NSL, 50.2% showed IPL and 23.3% EPS (n=215). NSL was highest in Gleason 6 (41.2%, n=97) while highest IPL was 58.5% (n=66) in Gleason 4+3, highest EPL was Gleason 8+ at 65.5% (n=29). In restaging scans for Gleason 6 tumours (n=65), 80% remained stable since last scan while for Gleason 3+4 tumours and above, 62.5% were stable since last scan (n=16). P value was <0.001 for all.

Conclusions: A definite role for pre-biopsy scans is established, some patients don't need biopsies. Restaging scans for tumours > Gleason 6 have a higher chance of progressing since the previous scan.

Keywords: Biopsy; malignancy; MRI; prostate; radiology

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