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840 PSMA PET/CT in Prostate Cancer (PCa) Management: Outcomes from a high-volume tertiary NHS centre

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Introduction: PSMA PET-CT (PSMA) is a relatively new development in PCa imaging. We report the role and impact of PSMA in the management of both primary and recurrent PCa since our service’s inception in January 2020.

Method: A retrospective analysis of PSMA database was conducted. All patients underwent conventional imaging (CI) [CT/MRI & Bone scan] as well. Indications for PSMA were:

1) Primary staging of high-risk PCa
2) Prior to salvage therapy
3) Equivocal findings on CI

Data collected included demographics, PSA, ISUP grade, D’Amico risk classification, and TNM staging. Data are expressed as median (range) and analysed using SPSS v25.

Results: Overall, 454 scans were reviewed; 175 (38.5%) and 279 (61.5%) scans were offered to evaluate primary and recurrent disease, respectively.

On reassessment with PSMA, 54.2% of all scans showed nodal or metastatic involvement that led to re-staging. More specifically, 56% of primary cases and 77.1% of recurrent cases had their stage, and consequentially, management plan modified. ISUP, cT3 stage, and D’Amico risk classification were not associated with upstaging (p>0.05).

Overall, there was poor agreement between CI and PSMA when evaluating nodal (k = 0.216, p <0.005) and metastases (k = 0.171, p<0.005) in staging either primary or recurrent disease.

Conclusions: PSMA is superior to CI in staging PCa and significantly alters management in these patients. It should be offered as the first line of staging imaging for primary (high-risk) and prior to salvage therapy.