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LETTER TO THE EDITOR

Incorporation of miPSMA score for interpretation of 68Ga PSMA PET/CT scans for standardization and reproducibility of studies

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Dear Sir,

In the current era of molecular imaging, 68Ga PSMA PET/CT is rapidly changing the scenario of management of prostate cancer. I read with interest the article published by Donato et al. [1] comparing 68Ga PSMA PET/CT with multiparametric MRI (mpMRI) for characterising prostate cancer. The results are very promising demonstrating superior ability of 68Ga PSMA PET/CT over mpMRI. Availability of histological diagnosis both in the form of biopsy and prostatectomy specimens is one of the strengths of the work.

While the results are very encouraging, the interpretation of 68Ga PSMA PET/CT has a subjective nature to it. The authors describe the interpretation as "positive for PCa if they demonstrated focal 68Ga-PSMA uptake significantly higher than background prostatic uptake according to nuclear medicine specialist's interpretation, and equivocal if uptake was only marginally higher than background according to the nuclear medicine specialist's interpretation" and then go on to further classify the result as "likely, equivocal, unlikely". The authors seem to have used to classification based on work of Eiber et al. [2] converting the original 5-point Likert scale to 3-point interpretation.

Eiber et al., in another work [3] addressing the need for standardized reporting of 68Ga PSMA PET/CT, have called for a three-point score for interpreting the PSMA uptake termed as the molecular imaging PSMA score (miPSMA score). While the comparison of uptake with background has a draw back as to where one has to call it increased, specially when low-level uptake is seen, and when colour scales such as linear or "hot iron" are used for interpretation, comparing the uptake in the prostate with that of liver and salivary glands makes it more objective. The miPSMA score also seems reproducible between observers.

Availability of the results in the miPSMA format would make it a standardized approach similar to the 5-point Deauville score [4] used in lymphomas and a benchmark for future studies providing possible objectivity to interpretation.

I once again congratulate the authors on their extensive analysis. I hope that this model of interpretation would shed better light on utility of 68Ga PSMA PET/CT in detecting clinically significant prostate cancer.

Regards,

Compliance with ethical standards

Ethical approval This article does not contain any studies with human participants or animals performed by any of the authors.

Conflict of interest The author declares that he has no conflicts of interest.

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