



EDITORIAL COMMENT

Fluorocholine PET in N-staging of primary prostate cancer – a nail in the coffin?

The need for accurate staging of intermediate-high risk prostate cancer is a strong driver of technical innovations in medical imaging. Current guidelines still recommend bone scintigraphy and abdominal computer tomography (CT), partly because these imaging tools are easily available but also because robust evidence for better outcomes with newer and more expensive approaches is lacking. During the last two decades, Positron Emission Tomography combined with CT (PET/CT) or magnetic resonance (PET/MR) were tested with a range of different radiopharmaceuticals, of which ^{18}F -fluorocholine (FCH) became widely adopted in parts of Europe. A PubMed search performed in May 2021 generated more than 400 FCH-related entries, suggesting intensive research efforts. However, many studies were small single-centre studies with less optimal gold standard evaluation of pelvic node spread. In this issue, Puterman et al. [1] present findings from one of the largest comparisons of FCH PET/CT for nodal metastasis detection compared to a histopathologic gold standard by extended lymph node dissection. FCH PET/CT had a 43% sensitivity and 70% specificity for N-staging, lower than many enthusiastic studies in smaller materials. Notably, the positive and negative predictive values were a mere 36% and 75%, respectively, rendering clinical decision-making based on FCH PET/CT risky.

Clinical use of FCH PET/CT ground to a halt a few years back, when PSMA-binding radiopharmaceuticals for PET were introduced. A PubMed search combining 'PSMA', 'PET' and 'prostate' May 2021 generated more than 1,800 entries, reflecting the explosive adoption rate world-wide. Having learned the lessons, the community rapidly generated evidence for the higher accuracy of PSMA-PET/CT than bone scintigraphy + CT and other PET radiopharmaceuticals [2,3]. However, the hard evidence that PSMA-PET/CT imaging improves outcomes remains an elusive target and,

consequently, guidelines still recommend basic CT for N-staging in primary prostate cancer. Given the speed of technical evolution and the long follow-up required in prostate cancer, it is foreseeable that even better imaging approaches are available once hard evidence for PSMA-PET arrives. By then, the work by Puterman et al. might be considered a final nail in the coffin of FCH-PET – adrift in the sediments of PubMed.

Disclosure statement

No potential conflict of interest was reported by the author(s).

References

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