

Prevalence of additional primary malignancies detected incidentally on PET/CT

We entirely agree with the conclusions of Tibana et al.⁽¹⁾. Although false-positives can occur with 18F-fluorodeoxyglucose positron emission tomography/computed tomography (PET/CT), the prevalence of true-positives cannot be underestimated. Additional primary malignancies may often be identified by this means and the likelihood of cure is much increased if such malignancies are treated promptly and aggressively. It was unclear what is the actual prevalence of malignancies discovered with PET/CT in this study.

The prevalence of additional malignancies discovered with PET/CT was highlighted in the various systems for breast⁽²⁾, bowel⁽³⁾, prostate⁽⁴⁾ and thyroid⁽⁵⁾ lesions. For example, in a study of 1665 patients, 70 incidentally detected lesions in the colon were identified and eventually 10 were diagnosed with bowel carcinoma⁽³⁾. There were additional pre-malignant lesions identified and early treatment was warranted in this scenario. Thus, it was found the prevalence of malignant and pre-malignant findings in the PET population was about 1.3%. A similar series showed a lower number of carcinomas but more adenomas (which would, of course, be considered pre-malignant) in a slightly larger series⁽⁶⁾. Hence, the prevalence was similar (at 1.1%). Knowing the prevalence may give a better idea of the importance of the incidental findings. This would be very helpful for both managing the individual patient as well as for public health and population health purposes.

REFERENCES

1. Tibana TK, Santos RFT, Araújo Filho A, et al. Detection of additional primary malignancies: the role of CT and PET/CT combined with multiple percutaneous biopsy. *Radiol Bras.* 2019;52:166–71.
2. Bertagna F, Evangelista L, Piccardo A, et al. Multicentric study on ¹⁸F-FDG-PET/CT breast incidental uptake in patients studied for non-breast malignant purposes. *Rev Esp Med Nucl Imagen Mol.* 2015;34:24–9.
3. Lee JC, Hartnett GF, Hughes BG, et al. The segmental distribution and clinical significance of colorectal fluorodeoxyglucose uptake incidentally detected on PET-CT. *Nucl Med Commun.* 2009;30:333–7.
4. Yang Z, Hu S, Cheng J, et al. Prevalence and risk of cancer of incidental uptake in prostate identified by fluorine-18 fluorodeoxyglucose positron emission tomography/computed tomography. *Clin Imaging.* 2014;38:470–4.
5. Adas M, Adas G, Koc B, et al. Incidental thyroid lesions on FDG-PET/CT: a prevalence study and proposition of management. *Minerva Endocrinol.* 2015;40:169–75.
6. Kamel EM, Thumshirn M, Truninger K, et al. Significance of incidental ¹⁸F-FDG accumulations in the gastrointestinal tract in PET/CT: correlation with endoscopic and histopathologic results. *J Nucl Med.* 2004;45:1804–10.

Joseph C. Lee^{1,2,a}, Marcelo Santos Teles^{1,b}

1. Department of Medical Imaging, The Prince Charles Hospital, Chermide QLD 4032, Australia. 2. Faculty of Medicine, University of Queensland, Herston QLD 4006, Australia.

Correspondence: Joseph C. Lee. Department of Medical Imaging, The Prince Charles Hospital, 627 Road Rd, Chermide QLD 4032, Australia. Email: Joseph.Lee@health.qld.gov.au.

a. <https://orcid.org/0000-0002-7683-8825>; b. <https://orcid.org/0000-0002-2003-7929>. Received 25 July 2019. Accepted after revision 1 August 2019.

<http://dx.doi.org/10.1590/0100-3984.2019.0097>

