

Follow-up of incidental findings on positron emission tomography

Kamakshi *et al.*^[1] clearly demonstrated that the need for adequate follow-up for incidental findings on positron emission tomography (PET) scans is critical. In their work, they focused on thyroid incidental findings and included an excellent review of the current literature. Understandably, there is a range of diagnostic possibilities in this region, both benign and malignant. However, the follow-up method and mechanism – and whether it is undertaken at all – is highly variable. This is concerning as additional malignancies may be missed in patients whose initial lesion has a good prognosis. PET is an intensive resource utilization, and yet important findings may be ignored.

We encountered the same problem in our earlier work.^[2] While we were primarily concerned with incidental colonic findings – particularly malignancies – the concepts are the same: The person initially had a PET scan for another malignancy and then had another significant localization of fluorodeoxyglucose (FDG) on the PET assessment. In both instances, the follow-up rate was surprisingly low.

In the series of 1737 patients by Kamakshi *et al.*,^[1] there were 204 focal incidentalomas. Of these, only 29 had a diagnostic evaluation. We experienced similar findings in our study, encompassing 1665 patients. Of these, 62 were found to have focal colonic FDG uptake. Only 37 of these were investigated. Subsequently, 25 were found to have malignancies and premalignancies in addition to the initial indication for PET.

The reasons for lack of follow-up may be varied. The patient might have chosen to avoid any further cancer-related consultations. Another possibility is that the patient was too unwell from their other condition(s) to have any other testing or a terminal prognosis may have rendered investigation futile. Alternatively, the clinician who ordered the PET scan might not have understood the significance of the finding. At worst, they might have overlooked it. It is concerning that patients may not be receiving adequate care for serious additional and hitherto unknown– problems. Inadequately, managing incidental findings may lead to adverse consequences.^[3]

Standardized reporting of incidental pulmonary nodules has recently been proposed.^[4] This might be extrapolated to the standardized reporting of significant incidental imaging findings. Consensus guidelines might also be helpful,^[5] endorsed by the appropriate Societies and specialist Colleges. We sincerely welcome further suggestions on any other possible helpful initiatives.

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Conflicts of interest

There are no conflicts of interest.

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REFERENCES

1. Kamakshi K, Krishnamurthy A, Karthik V, Vinodkumar P, Kumar RK, Lakshmiopathy KM. Positron emission tomography-computed tomography-associated incidental neoplasms of the thyroid gland. *World J Nucl Med* 2020;19:36-40.
2. Lee JC, Hartnett GF, Hughes BG, Kumar AS. The segmental distribution and clinical significance of colorectal fluorodeoxyglucose uptake incidentally detected on PET-CT. *Nucl Med Commun* 2009;30:333-7.
3. Delaney FT, Gray EL, Lee JC. The importance of appropriate reporting and investigation of incidental findings on computed tomography attenuation correction images during myocardial perfusion scintigraphy. *World J Nucl Med* 2019;18:74-6.
4. Aase A, Fabbrini AE, White KM, Averill S, Gravely A, Melzer AC. Implementation of a standardized template for reporting of incidental pulmonary nodules: Feasibility, acceptability, and outcomes. *J Am Coll Radiol* 2020;17:216-23.

5. Delaney FT, Fong KM, Lee JC. Primary thoracic cancers incidentally detected on CT attenuation correction images during myocardial perfusion scintigraphy. Clin Lung Cancer 2018;19:e575-9.

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