Clinical summary

- Female 44 year-old presented with multiple right cervical lymph nodes.
- Fine-needle aspiration cytology showed poorly differentiated adenocarcinoma.
- CT thorax/abdomen /pelvis was normal.
- PET/CT to localise occult primary tumour.
PET/CT findings

FDG PET scans shows:

- Multiple FDG-avid right level II – IV cervical lymph nodes.
- An FDG-avid right thyroid nodule.
- No other FDG-avid foci elsewhere in the body.

Surgery:

- Papillary thyroid carcinoma with nodal involvement.

http://humanhealth.iaea.org
Clinical summary

- Male 54 year-old presented with metastatic neck nodes from squamous cell carcinoma.

- Clinical and conventional work up showed only the enlarged nodes and the primary tumour could not be identified.

- PET/CT performed prior to radiotherapy planning.
PET/CT findings

Intense FDG uptake in the enlarged right cervical nodes and a small enhancing focus in the right pyriform fossa which is the possible primary tumour was suggested on PET & confirmed by biopsy.

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Clinical summary

• Male 77 year-old presents with left neck nodes.
• Fine needle aspirate showed metastatic nodes.
• Negative for primary on panendoscopy & conventional CT.
• PET/CT performed for detection of primary site.
PET/CT findings

Focal FDG uptake in the left palatine tonsil suggest possible primary site (A) and uptake in ipsilateral level 2 & 3 nodes (B & C) consistent with metastases. No distant spread (D).

Intense uptake noted in the gastric fundus, which did not show any corresponding CT abnormality is consistent with normal physiological activity or gastritis.
Clinical summary

- Female 75 year-old presents with metastatic supraclavicular lymph nodes.

- PET/CT performed for identification of primary disease & staging.
PET/CT findings

FDG avid left lower lobe subpleural nodule suggestive of possible primary (A), confirmed to be adenocarcinoma on biopsy.

Intense FDG uptake in the left level 4, supraclavicular and mediastinal nodes consistent with metastases (B).
Clinical summary

- Male 40 year-old presents with neck nodes from an unknown primary.
- Bilateral aryepiglottic fold enlargement noted clinically.
- PET/CT performed for identification of primary lesion.
Intense FDG uptake is seen in the aryepiglottic folds (A - arrow) and the right pyriform fossa (B). FDG avid nodal disease bilaterally (A – arrowheads). The scan is consistent with right pyriform fossa primary with aryepiglottic fold and locoregional nodal involvement.
Clinical summary

- Male 40 year-old presents with left cervical nodes from an unknown primary.
- PET/CT performed for further evaluation.
Focal intense uptake was seen in the base of the tongue in the midline, which was the primary site of the tumour.
Teaching points

• FDG PET/CT is appropriate for detection of occult primary in patients presenting with cervical lymphadenopathy when all other diagnostic tests are negative.

• PET/CT may identify a primary tumour site in patients presenting with cervical nodal metastasis of unknown primary, which may significantly alter management.