Clinical summary

- Male 54 year-old with known nasopharyngeal carcinoma treated with radiotherapy 2 years ago
- Follow-up ENT examination was suspicious of recurrence, but post-nasal biopsy was negative
- For restaging PET/CT
FDG PET/CT shows intense FDG uptake at:

A) Nasopharynx, extending to the nasal cavity, longus coli, ethmoid sinus, anterior part of the sphenoid and maxillary sinus.

B) Bilateral level I, II and III, and left level IV nodes.

C) Multiple liver metastases.

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Clinical summary

- Female 34 year-old with known nasopharyngeal carcinoma completed local radiotherapy 6 months ago
- Recent CT scan showed enlarged right level II node, & asymmetric thickening of posterior wall of nasopharynx
- PET/CT performed for restaging
A) FDG PET/CT shows very mild FDG uptake in posterior wall of the nasopharynx due to post-radiotherapy inflammatory changes.
B) Further intense uptake in right sided level II node.
Clinical summary

• Male 44 year-old with nasopharyngeal carcinoma, completed radiotherapy 9 months ago

• Presents with clinically suspected recurrence on ENT examination

• For restaging PET/CT
PET/CT findings

PET/CT shows intense FDG uptake at the roof and right posterior & lateral walls of the nasopharynx, with extension into the right para-pharyngeal space. Local tumour recurrence was confirmed on biopsy.

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Clinical summary

- Male 35 year-old with nasopharyngeal carcinoma, treated with chemoradiotherapy 12 months ago
- Presents with neck nodes seen on follow-up CT for restaging PET/CT
PET/CT findings

PET/CT shows two FDG-avid lesions in the left cervical lymph nodes (A), with no evidence of local recurrence at the primary site in the nasopharynx (B & C).
Teaching points

• FDG PET/CT is recommended for assessment of abnormal or equivocal findings on follow-up clinical examination and conventional imaging (MRI/CT).

• Post-biopsy and post-therapy changes may give rise to false positive FDG uptake. The recommended interval is 8-10 weeks post-therapy.

• Infection and inflammation in the nasopharynx may also cause false positive FDG uptake.