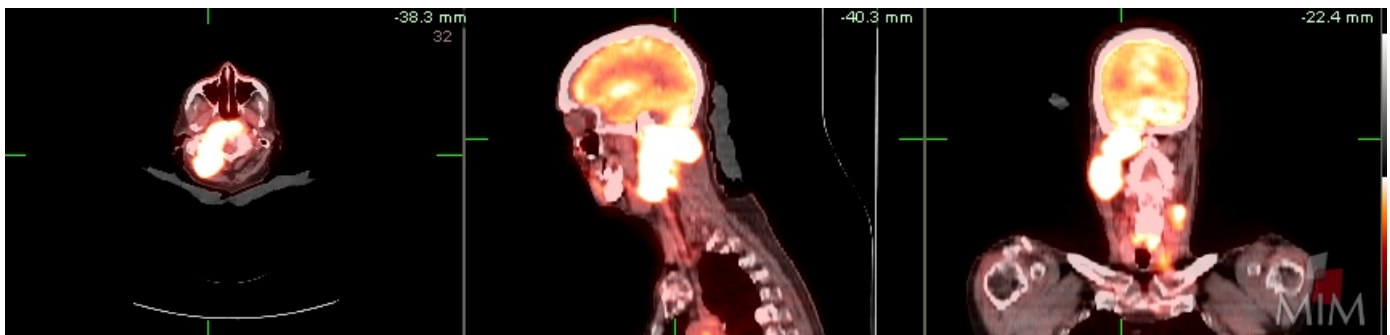


# PETIMAGING

## INTEGRATED PET/CT SCANNING CASE STUDY N<sup>o</sup> 102

### Initial Staging Nasopharyngeal Carcinoma

A 63 year old male is referred for a head and neck MRI due to right parotitis. The scan reveals that the parotid glands are normal; however there is a lobulated soft tissue mass measuring 8 x 5 x 3 cm which is consistent with metastases to the right anterior cervical chain lymph nodes in the inframandibular and retromandibular space as well as and the posterior upper neck region possibly originating near the base of the tongue on the right. Nonspecific left anterior and posterior cervical chain lymph nodes measure  $\leq 1$  cm with the exception of one lymph node which measures 1.1 cm, the significance of which is unclear. Fine needle aspiration of the right neck adenopathy confirms malignancy, and random biopsies of the throat, nasopharynx, and hypopharynx clarify the primary site to be a squamous cell carcinoma of the nasopharynx. A PET/CT is recommended to complete the staging workup.



The PET/CT reveals a very large intensely hypermetabolic lesion with a maximum SUV of 14.0 extending from the posterior right nasopharynx into the right posterior neck and right parotid space with associated osseous destruction involving the skull base and superior aspect of the cervical spine. As well, multiple hypermetabolic foci within the left jugular chain and **bilateral** posterior cervical lymph node chains are consistent with metastatic nodal disease.