



Thyroid Cancer

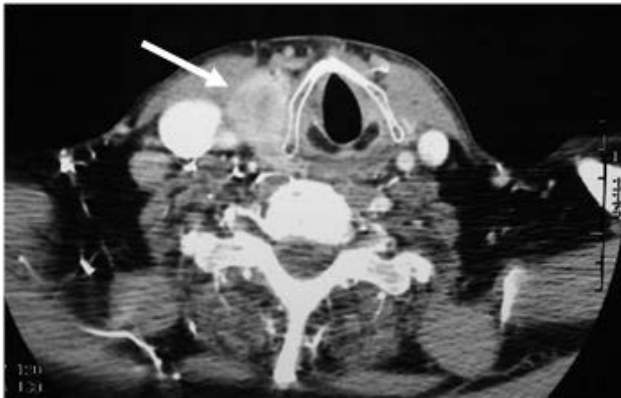


Fig. 1 Neck CT



Fig. 2 Chest CT

This 72 year old man presented with hoarseness. Laryngoscopy revealed right vocal cord paralysis. A CT scan of the neck and chest showed a large right thyroid mass (Fig. 1, arrow) and a very large mediastinal mass (Fig. 2, arrow). Fine needle aspiration of the thyroid mass and trans-tracheal biopsy of the mediastinal mass revealed **papillary thyroid carcinoma**, tall cell variant.

A PET scan was obtained which showed intense FDG uptake in the thyroid and mediastinal masses with cervical lymph node metastases, and distant metastases in the liver, abdomen, spine, sacrum, inguinal and femoral nodes and right femur.

How did the PET-CT help?

The PET provides whole body imaging (usually from the base of the skull to the mid thighs) with examination of most organ systems for both primary and metastatic disease in a single procedure. In this case, PET showed the full extent of the disease including many distant metastases.

In a recent review article, PET was found to be sensitive (60-94%) in the detection of recurrent or metastatic thyroid cancer in patients with negative I-131 scans.

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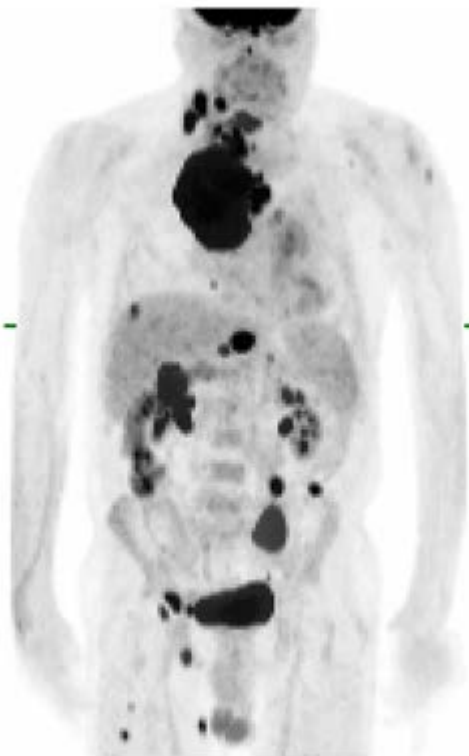


Fig. 3 PET scan 3D display