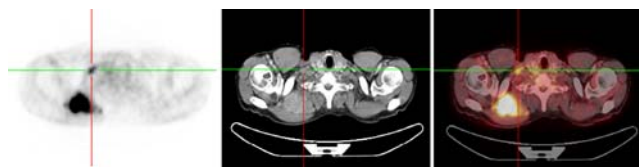
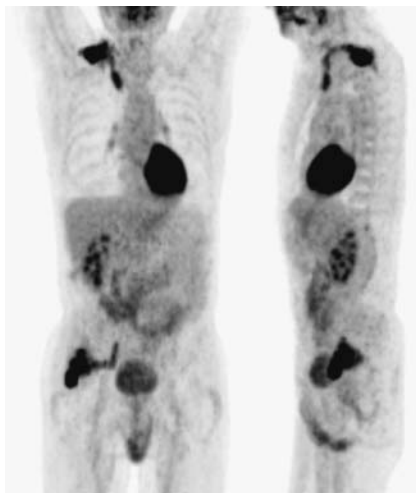


Demonstration of metastatic tumour growth following vessel structures by PET/CT

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A 70-year-old male patient presented with a 20-year history of renal cell carcinoma (RCC). He had undergone cerebral metastatectomy and resection of pulmonary and abdominal metastases three times. He is now suspected of having supra- or infraclavicular lymph node metastases. PET/CT was performed to improve/exclude metastatic disease [1–3].



PET/CT with IV contrast enhancement demonstrated a hyperintense soft tissue mass measuring 46×45 mm showing pathologically increased FDG uptake involving the right anterior trapezius muscle, extending to the upper thorax and infiltrating the brachiocephalic vein causing tumour thrombus formation correlating with intense tracer uptake. Another hypermetabolic soft tissue metastasis measuring 70×30 mm was noted posterior to the right acetabulum and ilium involving the gluteus medius and minimus muscles. This mass infiltrated via the lumbosacral plexus and vessels into the pelvis and the internal iliac vein causing tumour thrombus formation with pathological FDG uptake. The PET/CT scan in this case depicted the relation of metastatic tumour growth to vascular structures in addition to revealing tumour thrombus formation in RCC.

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