



Brachial Plexus Neurolymphomatosis; The Claw Sign on FDG PET/CT

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Clinical Image

80-year-old male presented with right arm weakness. There was anisocoria, left cranial nerve III palsy, right arm weakness and decreased sensation. MRI brain showed, no acute infarct; but asymmetric enhancement and enlargement of left cranial nerve III, left trigeminal nerve and bilateral Meckel's caves. Right brachial plexus MRI showed diffuse T2 hyperintensity, thickening and enhancement of C5-C7 nerve roots. CSF flow cytometry was suspicious for lymphomatous involvement.

Diffuse uptake on Fluorodeoxyglucose (FDG) PET/CT in the regions of bilateral trigeminal ganglia, right C5-7 nerve roots (claw sign), extending along right brachial plexus [1]. FDG PET/CT whole-body maximum intensity projection show linear, branching FDG uptake along right brachial plexus (the claw sign), corresponding diffuse T2 hyperintense signal on the MRI

Coronal STIR image. Also noted focal FDG uptake at bilateral Meckel's caves (circled) and at the right supraclavicular lymph node (arrow), lymphomatous infiltration confirmed on the excisional biopsy.

Neurolymphomatosis is an uncommon presentation of lymphoma, characterized by extranodal lymphomatous infiltration of peripheral nerves, nerve roots, plexus, and cranial nerves [2]. The clinical manifestation depends on the nerves involved [2]. MRI is the modality of choice, but is often challenging in detection of early recurrence, residual disease and treatment response assessment [3]. FDG PET/CT is helpful in evaluation of disease extent and potential to guide biopsy. This case highlights uncommon presentation of lymphoma, depicted by both MRI and FDG PET/CT.



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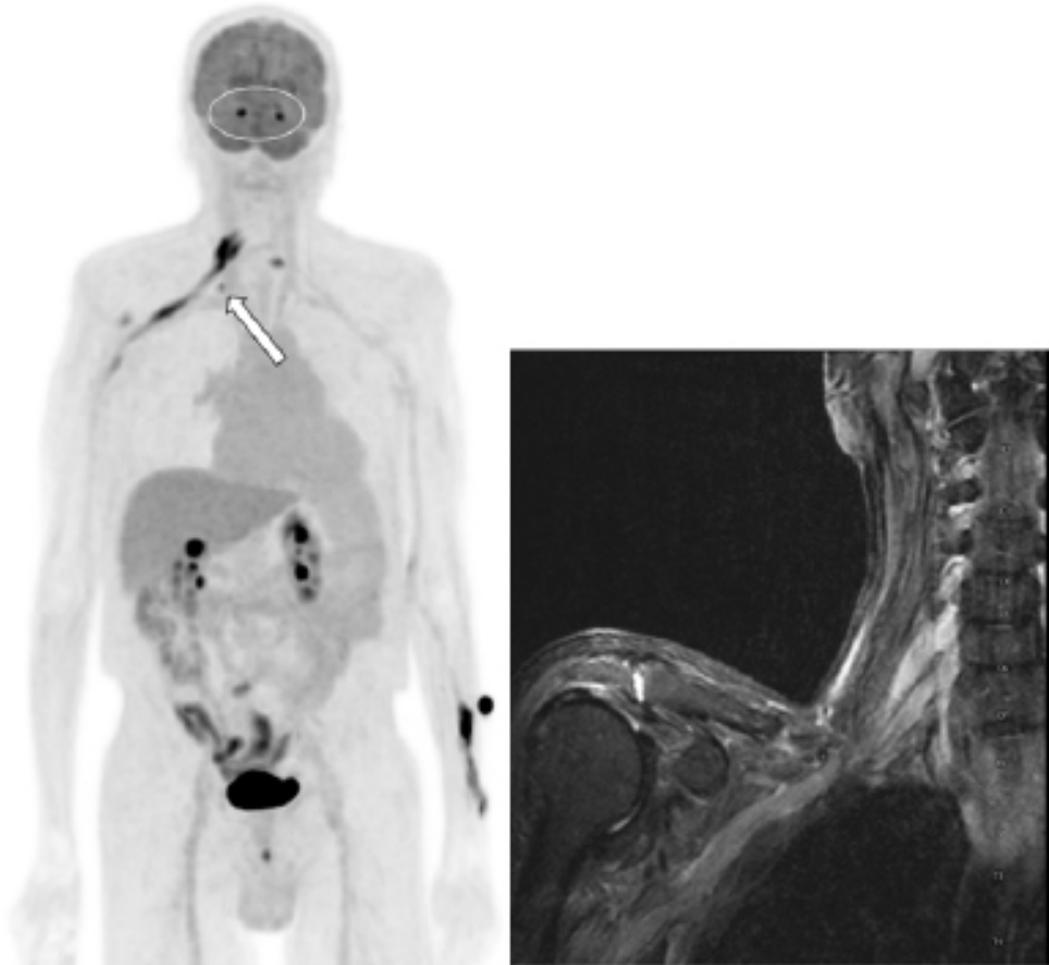


Figure 1

Author declarations

Consent

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