

A Linear Lesion along the Brachial Plexus on FDG-PET in Neurolymphomatosis

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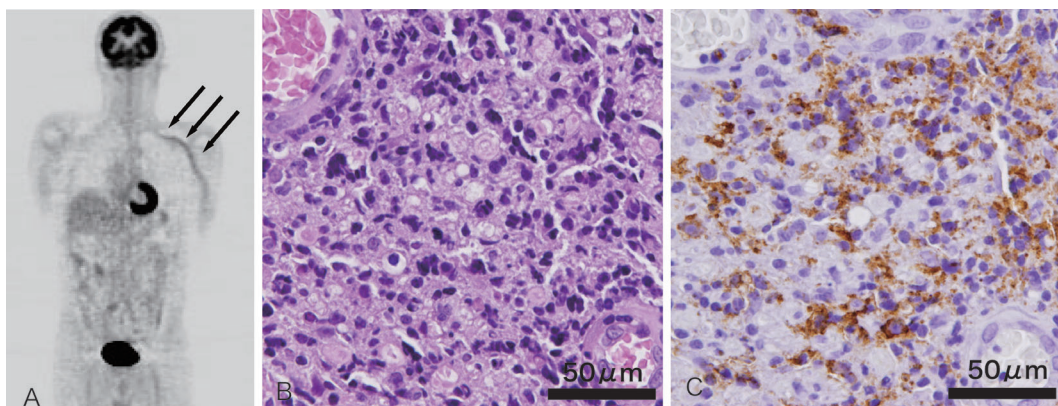


Figure 1.

A 64-year-old man developed glove and stocking-type numbness, painful weakness and muscle atrophy of the left arm, and dropping of the left foot during remission of diffuse large B cell lymphoma. Neurological and electrophysiological examinations indicated peripheral neuropathy, mainly involving the left brachial plexus. F-18 fluorodeoxyglucose positron emission tomography (FDG-PET) demonstrated a linear lesion along the left brachial plexus suggesting neurolymphomatosis (Fig. 1A) (1), although magnetic resonance imaging, computed tomography, and other labora-

tory studies did not show any evidence of lymphoma recurrence. Sural nerve biopsy confirmed infiltration of lymphoma cells within the nerve on hematoxylin-eosin staining (Fig. 1B), and these cells were immunopositive for an anti-CD20 antibody (Fig. 1C). FDG-PET would be helpful for the diagnosis of neurolymphomatosis (2-5). Moreover, FDG-PET could be highly useful for identifying the distribution of affected nerves because biopsy of the affected nerves or plexus is generally associated with a risk of irreversible damage.

References

1. Baehring J, Damek D, Martin E, Betensky R, Hochberg F. Neurolymphomatosis. *Neuro Oncol* 5: 104-115, 2003.
2. Trojan A, Jermann M, Taverna C, Hany TF. Fusion PET-CT imaging of neurolymphomatosis. *Ann Oncol* 13: 802-805, 2002.
3. Kanter P, Zeidman A, Streifler J, et al. PET-CT imaging of combined brachial and lumbosacral neurolymphomatosis. *Eur J Haematol* 74: 66-69, 2005.
4. Bokstein F, Goor O, Shihman B, et al. Assessment of neurolym-

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phomatosis by brachial plexus biopsy and PET/CT. Report of a case. *J Neurooncol* **72**: 163-167, 2005.

5. Rosso SM, de Bruin HG, Wu KL, van den Bent MJ. Diagnosis of neurolymphomatosis with FDG-PET. *Neurology* **67**: 722, 2006.

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