Neurolymphomatosis Appeared Following Primary Central Nervous System Lymphoma

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Picture 1.

Picture 2.

Picture 3a.

Picture 3b.

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A 51-year-old woman was admitted to our hospital due to a behavior disorder, a decline in cognitive function and right hemiparesis. Brain magnetic resonance imaging showed a mass lesion in the right temporal lobe with some peculiar linear lesions from which a biopsy specimen was obtained (Picture 1). The patient was diagnosed with CD20-positive primary central nervous system lymphoma. The symptoms disappeared after high-dose methotrexate therapy and cranial irradiation. However, the neuropathic pain reappeared one month later, and progressed to quadriplegia over several weeks. Laboratory tests revealed an increase in the patient's lactate dehydrogenase (278 IU/L) and soluble IL-2 receptor (2,100 U/mL) levels. A cerebrospinal fluid examination and bone marrow biopsy did not reveal any atypical cells. Neurolymphomatosis(NL) was diagnosed based on the ¹⁸F-DG-positron emission tomography findings (1) (Picture 2). R-CHOP therapy resulted in the temporary improvement of the

NL, however, the patient died one year later. A post-mortem biopsy specimen of the nerve from the left subclavian region showed that CD20-positive lymphoma cells had invaded the nerves (Picture 3a and b).

The authors state that they have no Conflict of Interest (COI).

Reference

1. Grisariu S, Avni B, Batchelor T, et al. Neurolymphomatosis: an International Primary CNS Lymphoma Collaborative Group report. *Blood* **115**: 5005-5011, 2010.

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