Neurolymphomatosis: uncommon cause of mononeuritis multiplex in a patient with malignant lymphoma

Yoko Inagaki^[Resident], Mitsuya Katayama^[a], Sandra Moody^[a]

^[a]Post Graduate Education Center, Kameda Medical Center, Kamogawa, Chiba, Japan.

**Introduction:** Neurolymphomatosis is a manifestation of lymphoma caused by the direct invasion of nerves by tumor cells. Though it is uncommon and rarely included as a cause of neuropathy, we report a case of a patient presenting with mononeuritis multiplex with systemic symptoms to raise the awareness of this aggressive disease.

**Case Presentation:** A 62-year-old woman presented with progressive right leg weakness over 3 months. She first felt heaviness in her right leg when climbing stairs. It gradually worsened, and led to frequent falls. Malaise, fever (37.7°C), and night sweats also developed. She had a weight loss of 6.5 lbs. over the previous 2 weeks. She presented to our hospital for further evaluation. On admission, she appeared pale and was sitting in a wheelchair. Neurologic examination revealed weakness of the right iliopsoas, quadriceps, and left anterior tibialis; decreased light touch of both hands, decreased vibration of both feet, and hyperreflexia of the upper and hyporeflexia of the lower extremities. Laboratory tests were notable for a hemoglobin 7.4g/dl, platelet count of 49,000/μl, LDH 1,652 U/l, creatinine 3.7 mg/dl, and uric acid 24 mg/dl. There was 2+ protein on urinalysis. Computed tomography scan showed hepatosplenomegaly and para-aortic lymphadenopathy. Bone marrow biopsy showed progressive infiltration of B-lymphocytes. FDG-PET scan showed high accumulation in the mandible, left humerus, pericardial fluid, right breast, and uterus. The final diagnosis of highly aggressive stage IV B-cell lymphoma was made and chemotherapy was started. She is still under treatment and has seen gradual improvement.

**Discussion:** Neurolymphomatosis usually presents with various types of neuropathy. Though it is rare, we should include it as a differential diagnosis of neuropathy because of its poor prognosis. Once suspected, bone marrow biopsy and FDG-PET scan should be performed for confirmation.