Pseudoradicular Sensory Loss Caused by a Cerebral Demyelinative Lesion

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A 25-year-old man suffered from recurrent, mass-like, intracerebral lesions and was diagnosed with tumefactive multiple sclerosis (MS). Both interferon β-1b and oral methotrexate (7.5 mg weekly) could not suppress frequent relapses, but he had been in remission for 8 months by the mitoxantrone treatment. At the age of 27, the patient developed a partial seizure. Brain MRI revealed a lesion in the right frontal lobe, and intensive investigation excluded etiologies other than MS. Thereafter, the patient complained of dysesthesia around the left shoulder. Neurological examination revealed sensory loss in left dermatomal regions from C3 to T1 levels (Picture 1). However, tendon reflexes were exaggerated in the left arm, and there was no weakness or long tract sign. Follow-up brain MRI showed a subcortical lesion in the right postcentral gyrus (arrowheads in Picture 2, A-C) consistent with the pseudoradicular sensory loss (1, 2), according to the sensory homunculus (3). The latencies of near-field potentials evoked by the median nerve stimulation (the potential at Erb’s point, N11, and N13) were within normal ranges, and cervical MRI revealed no lesion in the spinal cord and nerve roots. MS often attacks the spinal cord and causes sensory loss with a sensory level, but it rarely involves the parietal lobe to cause cortical sensory loss (4). Careful neurological examination led us to target the MRI precisely and make the correct anatomical diagnosis for our patient.

References


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