A Case of Cytomegalovirus Associated Guillain-Barre Syndrome with Antiganglioside Antibodies Showing Demyelination by Serial Neurophysiological Studies

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Introduction

In cytomegalovirus (CMV) associated Guillain-Barre syndrome (GBS) (CMV-GBS), patients often developed severe sensory loss and facial nerve involvement. Our patient’s clinical manifestations showed prolonged limb weakness in addition to previously reported symptoms with demyelination and progressive decrease in sensory nerve action potential (SNAP).

Case Presentation

We experienced a 54-year-old man with demyelinating form of CMV-GBS with IgM anti-GM1, anti-GM2 and anti-GalNAc-GD1a antibodies, whose serial neurophysiological studies revealed demyelination in motor nerves. He developed symmetrical limb dysesthesia and unsteady gait 10 days after diarrhea (day1). Neurological examination on admission of the 11th day revealed facial diplegia, symmetrical limb dysesthesia, hypesthesia and ataxia of both lower extremities, and hyporeflexia without limb weakness. The neurophysiological studies on the 11th, 40th, and 130th day demonstrated demyelination in the right median, ulnar, and posterior tibialis motor nerves as well as progressive decrease in SNAP in the right median, ulnar, and sural sensory nerves. Immunoadsorption plasmapheresis was performed five times. He noticed symmetrical limb weakness and progressive dysesthesia around the 16th day. He could not walk over 5 meters with assistance on the 31st day. Despite intravenous immunoglobulin therapy from the 73rd day, the patient’s lower limb disabilities remained at discharge on the 163th day.

Discussion

To our knowledge, this is a rare case report regarding a CMV-GBS patient with antiganglioside antibodies whose demyelination might be associated with prolonged limb weakness.