P-36 Brain stem stroke after gluteal herpes zoster

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Introduction:

Varicella-zoster virus (VZV) is known to cause broad spectrum of neurological diseases including meningitis, radiculomyelitis and stroke. While gluteal zoster can cause urinary retention called Elsberg syndrome, stroke is typically caused by ophthalmic-distribution zoster. We herein report a case of brain stem stroke after gluteal herpes zoster.

Case Description:

An 85-year-old man presented to our emergency room with diplopia and both eyes' ptosis. Thirteen days before admission, he had diagnosis of right gluteal herpes zoster and Elsberg syndrome. Since his zoster recovered by valaciclovir (2000 mg/day), diplopia and both eyes' ptosis suddenly appeared four days before admission. He denied fever, headache or loss of consciousness. On examination, vital signs were within the normal range. There were scabbing blisters on his right gluteal. Neurological examination showed nearly complete both eyes' ophthalmoplegia and ptosis. Magnetic resonance imaging showed acute infarction of midbrain. Lumber puncture demonstrated mononuclear pleocytosis (367 white blood cells with 93.1% lymphocytes), with elevated protein (481.4 mg/dl) and normal glucose to serum ratio. Cerebrospinal fluid (CSF) to serum VZV immunoglobulin G (IgG) ratio demonstrated high titers of anti-VZV IgG in CSF (6.3), but did not detect the presence of VZV DNA polymerase chain reaction. He was treated with acyclovir (750 mg/day) and prednisolone (50 mg/day). Urinary retention fully recovered, but ophthalmoplegia and ptosis continued.

Discussion:

Though ophthalmic-distribution zoster is said to increase the risk of stroke, the stroke occurred after gluteal herpes zoster in this case. Clinician should know even the herpes zoster except ophthalmic part can cause stroke. The main mechanism of stroke is vasculitis caused by direct infiltration of VZV. Unlike the general cerebral infarction, acyclovir and steroid are recommended as the treatment for herpes zoster induced infarction.