Spinal Cord Transient Ischemic Attack: Insights From a Series of Spontaneous Spinal Cord Infarction

Objective To define the prevalence and characteristics of spinal cord transient ischemic attack (sTIA) in a large retrospective series of patients who met diagnostic criteria for spontaneous spinal cord infarction (SCI).

Methods An institution-based search tool was used to identify patients evaluated at the Mayo Clinic in Rochester, MN, from 1997 to 2017 with spontaneous SCI (n = 133). Cases were subsequently reviewed for transient myelopathic symptoms preceding infarction that were suspected ischemic in nature. We performed a descriptive analysis of patients with sTIA before SCI.

Results Of 133 patients with a diagnosis of spontaneous SCI, we identified 4 patients (3%) who experienced sTIA before SCI. The median age at presentation was 61.5 years (range 46–75 years), 2 (50%) were women, and 3 (75%) had traditional vascular risk factors. Localization was cervical cord in 2 cases (50%) and thoracic cord in 2 cases (50%); all patients developed SCI in the same distribution as their preceding sTIA symptoms. All patients experienced recurrent sTIA before SCI. Symptoms ranged from seconds to a few minutes before returning to baseline. No patients had pain as a feature of sTIA.

Conclusions sTIAs are possible but rare in patients who subsequently have a SCI. Clinical features are similar to those of SCI, with rapid onset of severe myelopathic deficits, followed by prompt resolution. Vascular risk factors are common in these patients. Thus, recognition of a sTIA may represent a valuable opportunity for vascular risk factor modification and stroke prevention. However, given the rarity, physicians should explore other possible explanations when sTIA is considered.

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Dengue and Chikungunya Infection in Neurologic Disorders From Endemic Areas in Brazil

Objective To detect the frequency of dengue virus (DENV), Chikungunya virus (CHIKV), and Zika virus (ZIKV) in adult patients with suspected viral infection of the CNS or postinfectious syndromes living in the state of RJ, Brazil.

Methods DENV, CHIKV, and ZIKV RNA by reverse transcription PCR (RT-PCR) and specific IgM antibodies were investigated in 47 CSF and serum samples of 36 adult patients suspected with viral infection or postinfectious neurologic diseases. In addition, intrathecal synthesis of anti-DENV and anti-CHIKV IgG antibodies was also evaluated using a specific antibody index.

Results Of the total group, neuroinvasive arbovirus was confirmed in 31% (11/36) of the cases: 6 (55%) by RT-PCR in CSF and/or serum, 1 (9%) by RT-PCR in CSF and/or serum and specific IgM in CSF, and 4 (36%) by specific IgM in CSF. Five cases had DENV infection, and 6 patients were positive for CHIKV. No sample amplified for ZIKV. In addition, 3 of 7 (42%) tested cases had intrathecal synthesis of DENV or CHIKV antibodies. The neurologic complications included encephalitis (7), Guillain-Barré syndrome (2), optic neuritis (1), neuromyelitis optica spectrum disorder (1), polyneuropathy, (1) and myelitis (1).

Conclusion DENV and CHIKV are a frequent cause of emerging and reemerging infections. It increases the number of cases with neurologic complications worldwide. We demonstrated that the combined use of molecular and immunologic tests in CSF/serum might support more widely the diagnosis of neurologic disorders caused by arbovirus in endemic areas. The detection of intrathecal synthesis of specific IgG antibodies may be promising for the retrospective diagnosis of neuroinvasive disorders caused by arbovirus.

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