Frequency of HSV Reactivation in Acute Idiopathic Cranial Mononeuropathies in comparison with Normal Population through Serologic Assay

Mehdi Maghbooli, Amin Mirzaei, Hesam Mirshahabi
Department of Neurology, Zanjan University of Medical Sciences, Zanjan, Iran

Abstract

Background: Herpes simplex is a kind of DNA virus with high prevalence rate. This virus is a neurotropic virus and highly capable of involving nervous system. Multiple studies have shown the relationship between HSV reactivation and selective involvement of cranial nerves. This study is designed to investigate the relationship of HSV reactivation and otherwise idiopathic paralysis of cranial nerves in comparison with healthy subjects.

Method: In this hospital-based case-control study we consecutively enrolled 35 cases of acute idiopathic cranial mononeuropathies who referred to Zanjan Vali-e-Asr Hospital in 2018 and 2019. 35 controls that were matched with the patients for sex and age were recruited. A checklist was used to gather demographic and clinical variables. Sera were collected and measured for HSV IgM and IgG. The data were analyzed through SPSS 25. Level of confidence was 0.05.

Results: 42.8% of the patients were male and 57.2% female. The average of age was 58.37. HSV IgG was positive in 91.4% of the patients and 88.6% of the controls (P=0.33); IgG level in patients was significantly higher than controls (P=0.037). The IgM antibody test was positive in 37.1% of the patients and 14.3% of the controls and borderline in 17.1% of the patients and 11.4% of the controls (P=0.042).

Conclusion: Frequency of HSV reactivation in idiopathic cranial mononeuropathies was significantly higher than controls; so it should be considered as a cause of cranial mononeuropathy.

Keywords: Herpes simplex virus, Cranial mononeuropathy, IgG, IgM

Bottom Note:
This abstract has been taken from the conference world neuroscience dated on 27th May 2020