Original Paper

Diagnostic value of physical examination for topographic detection of infratentorial lesions in patients with cerebrovascular syndromes

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Abstract

Background and Objective: The Detection of neurologic signs for topographical disorders in central nerves system can prevent unnecessary neuroimaging techniques such as MRI. This study was performed to determine the diagnostic value of physical examination for topographic detection of infratentorial lesions in patients with cerebrovascular syndromes.

Methods: This descriptive study was done on 200 patients with cerebrovascular syndrome in Qaem Hospital in Mashhad, north-east Iran during 2011. Regarding to topographic physical examination, sensitivity, specificity, positive and negative predictive value and accuracy of signs of syndromes were compared to MRI as gold standard method.

Results: The accuracy of tetraparesis and crossed syndromes for localization of brain lesion in brainstem was 79% and 83%, respectively. The accuracy of hemiataxia for localization of brain lesion in ipsilateral cerebellar hemisphere was 98%. The accuracy of Wallenberg syndrome for localization of brain lesion in posterolateral medulla was 98%.

Conclusion: Using clinical neuro-examination skills and accurate topographic physical examination can prevent unwanted MRI technique for the diagnoses of cerebrovascular syndromes.

Keywords: Cerebrovascular Syndrome, Lesion, Topography, Brain, Cerebrovascular, MRI

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