

Khorasan posterior circulation stroke registry: A hospital-based study

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Abstract

Background: Clinical information about stroke in the vertebrobasilar territory has lagged behind that for anterior circulation syndrome. This is the first report from posterior circulation syndrome registry in Iran. **Methods:** Consecutive patients with brain infarction in vertebrobasilar territory admitted to Ghaem hospital, Mashhad were enrolled in a prospective study during ۲۰۰۶-۲۰۰۷. Diagnosis of ischemic stroke in the posterior circulation was made by a stroke neurologist based on the clinical manifestations and neuroimaging. Vertebrobasilar territory infarcts were classified into five groups according to the location involved: brainstem, thalamus, cerebellum, posterior cerebral artery, and mixed categories. All of the stroke patients underwent a standard battery of diagnostic investigations and the etiology of ischemic stroke was determined by the Practical Iranian Criteria classification. The ۷۲-hour stroke course determined as regressive, stable, and deteriorative. **Results:** Total of ۳۰۲ patients (۱۴۷ females, ۱۵۵ males) with mean age ۶۲.۵ years (± 17.2) were investigated. Posterior cerebral artery, thalamus, brain stem, cerebellum, and mixed categories consisted ۳۱.۳%, ۴.۳%, ۳۲.۸%, ۱۷.۹%, and ۱۳.۹% of the stroke topographies respectively. Atherosclerosis consisted ۵۰.۶% of etiologies in our patients followed by uncertain (۲۵.۵%), cardioembolism (۱۲.۵%), both atherosclerosis and cardioembolism (۶.۳%), and miscellaneous causes (۴.۶%). Rheumatic mitral stenosis was the cause in ۳۴.۲% of our patients with cardiac emboly. The distribution of stroke etiologies based on its localization was not significantly different ($df=16$, and $P=0.411$). Stable status was the most common early stroke course (۵۷.۷%) followed by deteriorative (۲۲.۱%), and regressive (۲۰.۲%). A significant association between stroke localization in the vertebrobasilar territory and its course was not found ($df=8$, and $P=0.911$). **Conclusion:** Atherosclerosis is the most common cause of posterior circulation syndrome in Iranian patients. The cause of stroke in the posterior circulation could not reliably be derived from infarct topography.

Reaxys Database Information

Author keywords

Posterior circulation; Stroke; Vertebrobasilar

Indexed Keywords

EMTREE medical terms: adult; article; atherosclerosis; brain infarction; brain stem; cerebellum; cerebrovascular accident; clinical feature; defense mechanism; disease course; disease registry; embolism; female; hospital admission; human; Iran; major clinical study; male; medical specialist; mitral valve stenosis; neuroimaging; posterior cerebral artery; prospective study; stroke; thalamus; vertebral artery

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