

Large vessel stenosis in the patients with ischemic stroke in Iran: Prevalence, pattern and risk factors

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Abstract

Background: Large artery disease (LAD) is a common cause of stroke, but little is known regarding its role in Iranian stroke patients. The current study investigates the prevalence and risk factors for cervicocephalic arterial stenosis in the patients with ischemic stroke using digital subtraction angiography.

Methods: This was a prospective cross-sectional study performed in hospitals affiliated to Shiraz University of Medical Sciences from March 2011 to March 2013. Patients with ischemic stroke underwent noninvasive vascular and cardiac investigations to find the etiology of the stroke. Patients suspected of having large artery stenosis underwent digital subtraction angiography. The severity of the stenosis was calculated according to the North American Symptomatic Carotid Endarterectomy (NASCET) and Warfarin-Aspirin Symptomatic Intracranial Disease (WASID)

Trial criteria. The presence of cigarette smoking, hyperlipidemia, hypertension, and diabetes mellitus were documented for all subjects.

Results: 3703 stroke patients were identified. 342 Patients (62.3%, male) underwent digital subtraction angiography for large artery disease. The mean age at the time of angiography was 66.7 ± 10.3 years. Extra-cranial and intra-cranial arteries were involved in 305(89.2%) and 162(47.4%) respectively. 301 patients (88%) had anterior circulation and 128 patients (37.4%) had posterior circulation involvement. Diabetes mellitus but not age, sex, hypertension, hyperlipidemia, or smoking was significantly associated with intracranial involvement. (P=0.002)

Conclusion: It can be concluded that the distribution of the large arterial atherosclerotic disease in Iran is similar to that seen in North America and Europe. Intracranial stenosis was more prevalent in diabetic patients.

