**The correlation between color duppler and neuroimaging findings and patients functional states at first day of acute cerebrovascular accidents (haemorrhagic and ischemic) in patients admitted in Ardabil's Alavy hospital in 1394**


## Abstract

**Introduction:** Cerebrovascular accident (CVA) is the third leading cause of death in the United States of America which was responsible for the death of 163000 people in 2012. Sonography of carotid arteries is the preferred method of diagnosing and monitoring people with atheromatous. Considering the diagnostic and clinical value of sonography of extrcranial vessels of the brain, identifying findings obtained from patients suspected of having CVA and TIA and their prevalence is of great importance. The present study seeks to investigate the correlations between Sonology (Doppler Sonography and TCD) and the functional state of ischemic and hemorrhagic CVA patients.

**Materials and method:** The current study is a cross-sectional investigation of 100 stroke patientsadmitted to Alavi hospital of Ardabil. Patients in the present study underwent CT scan, Doppler sonography, and TCD. The obtained data were analyzed using SPSS.

**Results:** The mean age of the patients were 66.3±11 and women constituted 53 per cent of the patients. High blood pressure, underlying heart disease, smoking, and diabetes were the major risk factors in the present study. Fifty eight per cent of the patients in the functional state were at moderate or moderate to severe disability. Atheromatous plaques, intima-media thickening, and the change of speed in the external carotid artery were most frequent in Doppler sonography investigations. There was no significant correlation between the obtained results from TCD and the functional state of the patients.

**conclusion:** Considering the non-significant correlation between TCD results and the functional state of the patients in this study, a more detailed scrutiny of this subject requires the TCD investigation of the patients on several different days and after the initiation of the treatment of the patients.



Key words: CVA, TCS, carotid Doppler sonography, functional state of patients