

## **evaluation of ischemic stroke and TIA recurrence after 3 month of first ischemic transient attack based on DWI imaging in Alavi hospital of Ardabil**

### **Abstract**

**Background:** TIA is a transient stroke that lasts less than twenty-four hours and includes symptoms of motor, sensory, ataxia, diplopia, blurred vision, speech disorders, etc., which due to the transient symptoms in patients and even Some doctors consider it insignificant. Ten percent of patients develop a stroke within three months after the first symptoms and 30 percent over the next five years. Imaging is necessary for differential diagnosis and diagnosis. Although patients' clinical signs resolve in less than 24 hours, imaging changes may occur. The duration of symptoms and the type of symptoms and risk factors and imaging can play an effective role in the prognosis of patients and it was decided to study the prognosis of these patients according to the variability of imaging patients.

**Aim:** evaluation of ischemic stroke and TIA recurrence after 3 month of first ischemic transient attack based on DWI imaging

**Materials and methods:**In this study, patients who present to Alavi Hospital with transient neurological symptoms (including motor symptoms, sensory, ataxia, diplopia, blurred vision, speech disorders) are examined, imaged and examined in a laboratory. Among the patients, those who were treated with the final diagnosis of transient ischemic attack were selected and included in the study. Brain DWI MRI imaging was recorded for the patients. Patients' information was followed up three months later by outpatient, hospitalization or telephone and recorded in the relevant form.and then, analyzed using SPSS software by using statistical methods.

**Results:** According to the study, there was a significant relationship between patients' ABCD2 score and the rate of TIA recurrence or stroke during the first 90 days. (p-value=0.003) The mean score of ABCD2 was 4.69 in people with recurrence and 4.02 in people without recurrence. It was also shown that the mean ABCD2 score in individuals with abnormal DWI MRI was significantly higher

than in individuals with normal DWI MRI. (p-value=0.004) The mean score of ABCD2 in people with abnormal DWI was 4.72 and in people with normal DWI the mean score was 4.04. Patients with abnormal DWI MRIs were also shown to have significantly higher recurrences of TIA and stroke in the first 90 days after the first TIA attack. (p-value<0.001) Among those with abnormal DWI MRI, 21 patient(72.4%) had a recurrence and among those with normal DWI MRI, 12 patient(11.3%) had a recurrence.

**Conclusion:** TIA patients who have a higher ABCD2 score or have a lesion in favor of TIA symptoms in the first 24 hours on DWI MRI are more likely to have a recurrence of TIA or the onset of stroke within 90 days of the first TIA attack.

**Key words:** stroke , TIA , DWI MRI , Ischaemic stroke.