

## **Evaluation of etiology and treatment trend of patients with first seizure admitted to Alavi Ardabil hospital during 2017 – 2018**

### **Abstract**

**Background and objective:** Seizure is one of the most important neurological conditions. It is necessary to obtain data related to the etiology, diagnosis, therapeutic process and outcome of first seizure to develop and improve the services to these patients. The present study way to investigate the etiology and therapeutic trend of the patient referred with the first seizure to the Alavi Ardabil medical education center.

**Methods:** All patients referred to Alavi Ardabil medical education center for the first seizure were enrolled in the census at the years 96 – 97. At the first step, based on the objectives of the study, the data collection table compiled in the form of data collection. At the second step, the information needed for each patient including age, sex, seizure type, status seizure, abnormal findings in imaging, abnormal findings in the EEG, types of initial treatment, abnormal laboratory findings, types of maintenance treatment and family history of seizure were collected by studying the patient's records, asking the physician and asking the patient himself. At the next step, after discharging the patients from the hospital, each patient was followed up for 2 months, and the required information including seizure recurrence, side effects of taking antiepileptic drugs and method of drug using for each patient was assembled. After completing the sampling and collecting data, patient's information analyzed using SPSS software version 21 in accordance with the objectives of the study.

**Results:** The mean age of the patients was  $42.9 \pm 17.9$  years, and the majority of patients were between the ages of 30 – 39 years. In this study, 26 patients were men (53.06 %), and the rest were women. 95.8 % of the subjects had no family history of seizure. The most common cause of seizure in both sexes was vascular diseases. The highest incidence in both sexes was focal seizure, and 2 cases were status seizure. Most of the MRIs (53.2%) had no specific findings, and were reported to be normal. The most frequent finding in the MRI was ischemic changes. 29 cases (57%) were normal and had no abnormal findings. The most abnormal laboratory findings were hypocalcaemia with 21 patients (42.7%). The highest rate of treatment received during the first seizure period was Diazepam and Depakine. The most used maintenance treatment was Depakine. The most common side effects of the drugs were nausea and fatigue, and there was a statistics relationship between seizure recurrence and irregular drug intake or discontinuation of the drug.

**Conclusion:** Regarding to the fact that recurrence of seizure and occurrence of side effects of drugs in patient with first seizure is much more related to discontinuation of the drugs, it is recommended that doctors explain the side effects of the drugs and the importance of continuity

the patients diet, when patients discharge from the hospital, and these patients should be kept under constant follow up for drug use.

**Key word:** First seizure, etiology, treatment trend, Ardabil