Examining demographic and clinical characteristics of epilepsy patients referred to Alavi Hospital in Ardabil city in 2021

Abstract

Background: Nervous system diseases such as epilepsy are influenced by age, race, geographical region and population structure, and with the passage of time due to the change in the population structure and lifestyle and the aggravation of its risk factors, the prevalence of these diseases will change. This will also affect macro and management decisions.

Aim: The present study was conducted with the aim of investigating the demographic and clinical characteristics of epileptic patients referred to Alavi Hospital in Ardabil city in 2021.

Materials and Methods: This study was conducted on all patients with epilepsy who visited the neurology clinic of Alavi hospital in Ardabil during the year 1400. The sampling method was full enumeration and purpose-based, and all cases referred to the neurology clinic of Alavi Hospital in Ardabil with a definite diagnosis of epilepsy, which are 400 people, were clinically examined and recorded. The method of collecting information through a questionnaire including demographic information such as age, gender, place of residence, occupation, education level, marital status and economic status of the household, and clinical information such as the duration of the disease, the presence of a family history of the disease, the presence of underlying diseases. - the risk factors of the disease - the type of clinical symptoms - the rate and severity of the symptoms - the type of drug used - the amount of drug use - the side effects of drug use - the level of awareness of the patients about the disease and...

Results: The study revealed that two age groups, individuals over 60 years old (comprising 104 participants) and those between 20 and 29 years old (72 participants), exhibited the highest prevalence of epilepsy. Among the identified cases, the most prevalent coexisting conditions included blood pressure disease (affecting 104 individuals), psychiatric diseases (present in 98 individuals), and diabetes (found in 89 individuals). Notably, the majority

of participants, totaling 190 individuals, were on a single-drug regimen. Family history of epilepsy (27 cases) and a history of head trauma (24 cases) emerged as the most common risk factors among the patients. Regarding the types of epilepsy observed, tonic-clonic epilepsy was the most prevalent, affecting 160 individuals, followed by tonic epilepsy in 40 individuals, and focal epilepsy without loss of consciousness in 79 individuals. Approximately 69% of the participants (276 patients) had a history of epileptic seizures. The magnetic resonance imaging (MRI) results indicated that Gliosis and Encephalomalacia were the most common types of abnormalities, observed in 27 and 22 individuals, respectively. Additionally, Delayed myelination was identified in 22 individuals. Analyzing the electroencephalogram (EEG) results, the majority of findings were classified as Nonepileptiform, indicating that the observed brain activity did not exhibit epileptic patterns.

Conclusion: This study provides valuable insights into the prevalence of adult epilepsy in Ardabil city. Tonic-clonic epilepsy and tonic epilepsy emerged as the predominant types within this region. The findings underscore the importance of understanding the epidemiology and characteristics of epilepsy in the local population, aiding in the development of tailored management strategies and healthcare interventions.

Key words: epilepsy - demographic characteristics - clinical manifestations - Ardabil