

## **Early Atherosclerotic Changes in the Patients with Idiopathic Epilepsy: Egyptian Preliminary Study**

### **Abstract**

**Background:** Patients with epilepsy are at higher risk for atherosclerosis which may be due to epilepsy or antiepileptic drugs. The frequency of atherosclerosis in patients with epilepsy was not previously studied in Egypt. **Objective of this study:** This study aimed to detect the frequency of subclinical atherosclerosis and some vascular risk factors in patients with idiopathic epilepsy and to correlate it to clinical and laboratory data. **Patients and methods:** Ninety patients with idiopathic epilepsy and 30 ages, sex matched healthy controls subjected to neurological examination, extra cranial carotid duplex, lipid profile, uric acid and CRP levels. **Results:** The level of high density lipoprotein cholesterol was significantly lower in all patients with epilepsy and those treated with enzyme inducer antiepileptic drugs than the control subjects. Level of serum uric acid was statistically significantly higher in all patients with epilepsy including the untreated patients and those treated with on-enzyme inducer and poly antiepileptic drugs than control subjects. The Common Carotid Artery Intima Media Thickness (CCA IMT) was significantly higher in all patients with epilepsy including untreated and treated patients with enzyme inducer or non-inducer than control. There was a significant positive correlation between the CCA IMT and duration of illness as well as duration of the antiepileptic drugs.

**Conclusion:** Frequency of subclinical atherosclerosis in the patients with idiopathic epilepsy was 63.33%. The epilepsy itself could result in subclinical atherosclerotic changes in the patients with epilepsy, which could be exacerbated by the antiepileptic drugs, particularly the enzyme inducer drugs.