Neurology: Neurochemistry, Neuropharmacology and Neurosciences

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Drug and substance abuse and epilepsy

Object:

The present work aimed to study the etiology of non-response to antiepileptic drugs by estimating their serum levels and screening of drugs and substance abuse in patients with resistant epilepsy.

Methods;

this study was conducted in epilepsy outpatient clinic. 924 patients with intractable epilepsy were included. They subjected to - Toxicology screen for detection of drug and substances abuse by analysis of urine and blood samples.-Measurements of the level of antiepileptic drugs in the blood. All assays run on the system use of EMIT and confirmed by GC/MS.

Results;

Confirmed Positive results for drugs and substances abuse were detected in 246 of 924 patients (26.62%) by GC/MS. Cannabis was the first abused drug (29.27%). Only 17 patients show serum level of antiepileptic drugs within therapeutic range, but 169 patients' levels were below it and 60 patients with levels above it.

Conclusions;

Substances abuse may be the cause of resistant epilepsy as they are epileptogenic by themselves or due to drug-drug interaction with the antiepileptic.

Recommendations;

- A screening test for drug and substances abuse performed if drug abuse or withdrawal suspected in patients with resistant epilepsy even if patients deny the use of them.

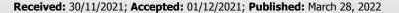
- To confirm the results of EMIT, further study is needed by using GCMS as it is more sensitive and more specific than EMIT system.

Key words;

urine samples; blood samples; EMIT; GC / MS

Biography:

Raafat abdeldayem is working as Associate Prof of Toxicology, Emergency Hospital, and Faculty of Medicine in Mansoura University, Egypt. He has 15 years of experience in the epilepsy and he had done many research works in this field. And his area of interests is Toxicology and Epilepsy.





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Neurological Disorders