



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم

بسم الله الرحمن الرحيم



MONA MAGHRABY



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جامعة عين شمس

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FREQUENCY OF PERIICTAL APNEA AND CARDIAC ARRHYTHMIAS IN EPILEPTIC SEIZURES

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مقدمة من

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قالوا

لَسْبَحَانَكَ لَا عِلْمَ لَنَا
إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ
الْعَلِيمُ الْعَظِيمُ

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LIST OF ABBREVIATIONS

AEDs	Antiepileptic drugs
ASDS	Automated seizure detection systems
AVM	Arteriovenous malformation
Bpm	Beats per minute
CO₂	Carbon dioxide
CPAP	Continuous positive airway pressure
CPS	Complex partial seizures (CPS)
DRE	Drug resistant epilepsy
ECG	Electrocardiography
EEG	Electroencephalography
EMG	Electromyography
FBTCS	Focal onset to bilateral tonic-clonic seizures
Fig	Figure
FOA	Focal onset aware
FOIA	Focal onset with impaired awareness
GABA	Gamma-Amino butyric acid
GTCs	Generalized onset tonic-clonic seizures
HT	Hydroxytryptamine
ICA	Ictal central apnea
ICSD-2	International Classification of Sleep Disorders-2
ILAE	International League Against Epilepsy
JME	Juvenile myoclonic epilepsy
MT 1	Melatonin receptor 1
MT 2	Melatonin receptor 2
MORTEMUS	Mortality in Epilepsy Monitoring Unit Study
N	Number
NREM	Non rapid eye movement

List of Abbreviations

MRI	Magnetic resonance imaging
NHSS	National hospital seizure severity
OR	Odd ratio
OSA	Obstructive sleep apnea
PGES	Postictal generalized EEG suppression
REM	Rapid eye movement
SD	Standard deviation
SE	Status epilepticus
SHE	Sleep-related hypermotor epilepsy
SpO₂	Capillary oxygen saturation
SPSS	Statistical package for Social Science
SSRIs	Selective serotonin reuptake inhibitors
SWI	Spike wave index
SUDEP	Sudden Unexpected Death in Epilepsy
TNF- α	Tumor necrosis factor alpha

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INTRODUCTION

Epilepsy is a chronic neurological condition representing a significant burden for the patient and the society (**Moshé, 2015**). Epilepsy is the most common serious brain disorder worldwide. It has no age, racial, geographic or socio-economic boundaries. The prevalence of epilepsy in Europe is 8.2 per 1000 people, thus around 6.000.000 people in Europe currently have epilepsy whilst 15.000.000 people will have had epilepsy at some time in their lives (**EU CARE, 2003**). Similar range (9.3 per 1000) was also reported in Egypt (**Khedr et al., 2013**).

Epilepsy can be treated very effectively with antiepileptic medication. Up to 70% of patients may become seizure free (about 60% with the first drug and a further 10% after further attempts) (**Berg and Rychlik, 2015**).

In an Egyptian study incidence of obstructive sleep apnea (OSA) in epileptic patients was studied in both controlled and refractory patients. There was no significant difference in number of patients having OSA between the refractory epilepsy and the medically controlled epilepsy group. The frequency of OSA was found to be 10% in patients with controlled epilepsy, while its frequency in patients with refractory epilepsy was found to be 16.7%. Interestingly, O₂ desaturation nadir was significantly higher in refractory than in controlled patients (**Rashed et al., 2019**).