



ETIOLOGICAL PROFILE OF ADULT ONSET SEIZURES IN TERTIARY CARE CENTER IN TROPICS

Neurology

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ABSTRACT

AIM: The aim of the study is to know the common etiological factor for new onset seizures in tropics

METHODS: This prospective study was conducted at Rajiv Gandhi Govt. General Hospital, Madras Medical College from January 2014 to April 2015. Patients who are admitted with new onset seizure were included. Patient with known seizure disorder were excluded.

RESULTS: In this study 100 patients were included. Mean age in males 40.02 females 42.48 new onset seizures more common in males. Especially in 3rd and 4th decades from different areas of state, with different occupation. The analysis of etiological factor revealed the following result. CNS Infections (32%) $P < 0.0001$, Vascular causes (25%) $P < 0.0001$, Craniocerebral trauma (13%) $P < 0.001$, Space occupying lesions (12%) $P < 0.001$, Metabolic causes (10%) $P < 0.001$, Alcohol related seizure (6%), OPC poisoning (2%).

CONCLUSION: This study reveals that CNS infections, vascular causes, Craniocerebral trauma and CNS neoplasm are the common etiology for new onset seizures in tropics. Appropriate measures to control these factors will help in reducing the morbidity and mortality due to new onset seizures.

KEYWORDS

Etiological profile, New onset seizures, Tropics

INTRODUCTION

Large part of India, China, South America are located in the tropical region. Seizure are major problem in tropical countries. The common etiology for new onset seizure in tropics are CNS infections, central nervous trauma, CNS neoplasm.

AIM

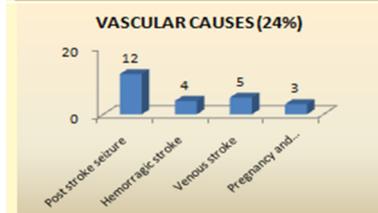
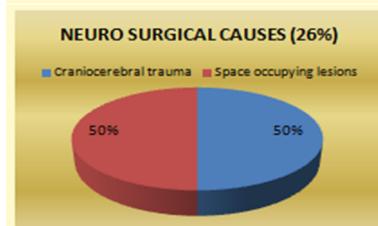
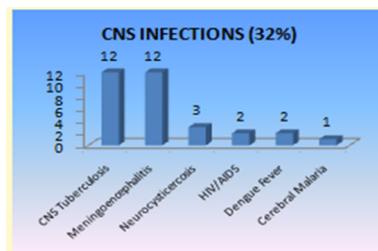
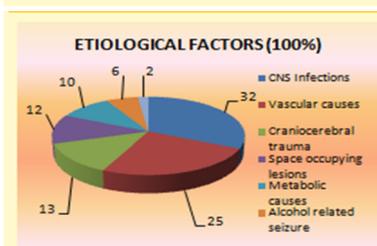
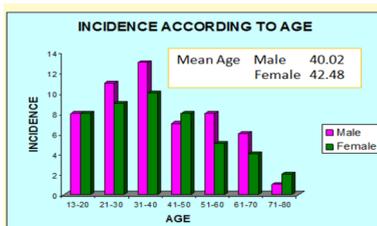
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DISCUSSION

Seizure is due to abnormal electrical burst in the neurons of the brain. Seizures are divided into generalization and partial seizures. Partial seizures are divided into simple and complex partial seizures. Generalized are divided into tonic-clonic, absence and myoclonic seizure.

Generalized seizures affect both cerebral hemispheres. Partial seizures may arise from frontal, temporal, parietal and occipital lobes as focal seizures. Sometimes it may spread to both lobes as secondary generalized seizures.

Here we studied the etiological profile of new onset seizures in tropics in a tertiary care center.

CNS INFECTIONS (32%) – P<0.0001

CNS tuberculosis is the common CNS infections causing seizures it presents as tuberculosis meningitis, encephalitis, tuberculoma, miliary tuberculosis. Bacterial meningitis, encephalitis and brain abscess may present as new onset seizures.

Viral encephalitis presents as new onset seizures. HIV encephalitis presents as new onset seizures. Neurocysticercosis, cerebral malaria presents as new onset seizures.

VASCULAR CAUSES (25%) – P<0.0001

Hemorrhagic stroke, subarachnoid bleed presents as new onset seizures. Cerebral venous thrombosis presents as new onset seizures. Postpartum Cerebral thrombosis, Eclampsia, posterior reversible encephalopathy, reversible cerebral vasoconstrictions syndrome presents as new onset seizures.

CRANIOCEREBRAL TRAUMA (13%) – P<0.001

Cerebral contusion, subarachnoid bleed, extra dural bleed, intra dural bleed, intra cerebral bleed present as new onset seizures.

SPACE OCCUPYING LESIONS (12%) – P<0.001

Benign and malignant tumours of brain presents as new onset seizures. Vascular malformation such as AV malformation, cavernoma, angioma and aneurysm presents as new onset seizures.

METABOLIC CAUSES (10%) – P<0.001

Hypoglycaemia, hyperglycaemia, uraemia, hyponatremia, hypernatremia, and hypocalcemia are presents as new onset seizures. These factors are correctable and reversible.

TOXIC CAUSES (8%) – P<0.001

Alcohol related seizures are treatable. OPC poisoning presents as new onset seizures treated with appropriate antidote.

CONCLUSION

This study reveals that CNS infections, vascular causes, Craniocerebral trauma and CNS neoplasm are the common etiology for new onset seizures in tropics. Appropriate measures to control these factors will help in reducing the morbidity and mortality due to new onset seizures.

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