

Etiological Analysis of Late Onset Epilepsy at R.I.M.S, Ranchi, Jharkhand, India

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Abstract

Introduction: Epilepsy describes a condition in which a person has recurrent seizures due to chronic underlying process. Epilepsy refers to a clinical phenomenon than a single disease entity, since there are many forms and causes of epilepsy.

Objective: To analyse the etiological agents of late onset epilepsy.

Method: Data for the study was collected from patients with epilepsy admitted in Department of Medicine at R.I.M.S RANCHI. Total of 60 patients were included in this study and their detailed etiological analysis was done.

Conclusion: Neurocysticercosis was the most common cause of late onset epilepsy at R.I.M.S, RANCHI in this study.

Keywords: Epilepsy, Late Onset, Neurocysticercosis.

I. Introduction

Epilepsy describes a condition in which a person has recurrent seizures due to chronic underlying process. Epilepsy refers to a clinical phenomenon than a single disease entity, since there are many forms and causes of epilepsy.(1)

A seizure is a paroxysmal event due to abnormal excessive or synchronous neuronal activity in the - brain.(1)

The term epilepsy comes from the greek word “ epilambanein” which means “to take hold of “ or “to seize”.

The worldwide prevalence rate of epilepsy has been estimated at 5-10 persons per 1000.(1),(6).

The prevalence rate in india is 5.59 per 1000 with no stastically different rates between men and women or urban and rural residence.(2),(5).

The incidence of epilepsy is 0.3-0.5% in different populations throughout the world.(1),(6).

Incidence rate varies from 38 to 49.3 per 1,00,000 population per year from two community based studies in india.(3),(5).

Classification of seizures (1),(7),(8)

(The International league against epilepsy , commission on classification and terminology)

1. Focal seizures
(can be further described as having motor, sensory, autonomic, cognitive or other features)
2. Generalised seizures
 - a. Absence
 - Typical
 - Atypical
 - b. Tonic clonic
 - c. Clonic
 - d. Tonic
 - e. Atonic
 - f. Myoclonic
3. May be focal, generalized or unclear

Epileptic spasms

Epilepsy of late onset may be simply defined as epilepsy beginning in adult life. Epilepsy beginning in adult life is likely to be due to progressive brain disease as compared to idiopathic epilepsy, which has its onset in childhood or youth.(4),(9),(10).

Hence this study is aimed to evaluate the etiological analysis of lateonset epilepsy in patients of more than 18 years of age at R.I.M.S, Ranchi.

II. Materials And Methods

Source of data:

Patients admitted in R.I.M.S, Ranchi in the Department of Medicine, in the study period between October 2013 to October 2014.

Inclusion criteria:

1. Age of onset of epilepsy >18 YEARS.
2. Epilepsy diagnosed according to International League Against Epilepsy.

Exclusion criteria:

1. Onset before 18 years of age but continued to have seizures even after 18 years.
2. Age of onset of seizures <18 years.
3. Metabolic seizures
4. Posttraumatic seizures
5. pseudoseizures

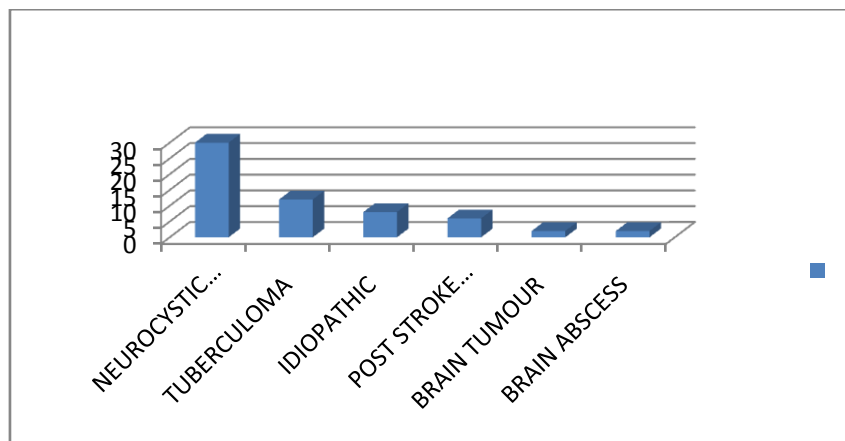
Detailed history was taken from the selected patients, clinical examination was done, and following investigations were done: CBC, RBS, Blood urea, serum creatinine,serumsodium,potassium,calcium,magnesium,HIV 1&2, VDRL,X-Ray,CT Scan/MRI Brain, CSF Analysis, ELISA(Serum/CSF),Quantiferon TB Gold Assay, EEG

III. Results

Total 60 patients were taken in this study and following result was found:

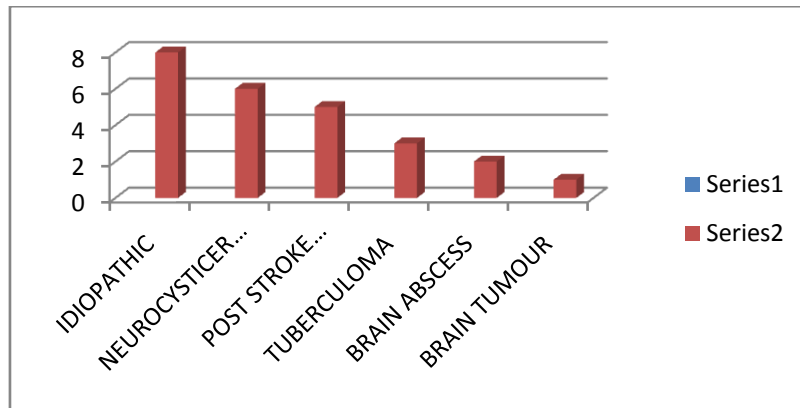
Etiology Of Epilepsy

Etiology	No. Of Patients	Percentage
Neurocysticercosis	30	50%
Tuberculoma	12	20%
Idiopathic	8	13.33%
Post Stroke Epilepsy	6	10%
Brain Tumour	2	3.33%
Brain Abscess	2	3.33%



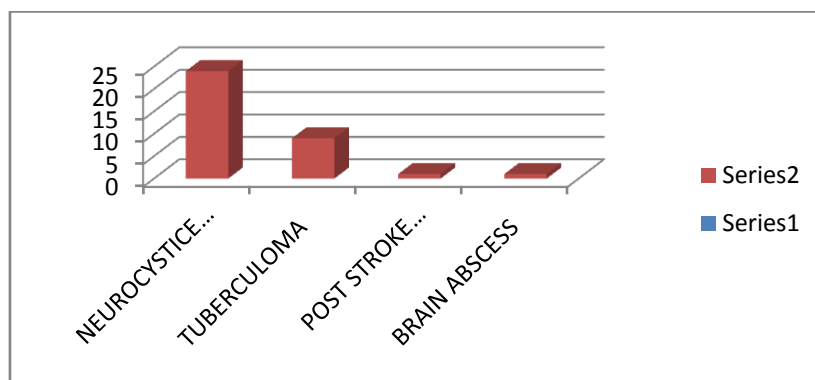
Etiology of generalised seizure:

Idiopathic	8
Neurocysticercosis	6
Post Stroke Epilepsy	5
Tuberculoma	3
Brain Abscess	2
Brain Tumour	1



Etiology of partial seizure:

Neurocysticer...	24
Tuberculoma	9
Post Stroke Epilepsy	1
Brain Abscess	1



IV. Discussion And Conclusion

Epilepsy beginning in adult life are likely to be an identifiable cause as compared to those beginning in childhood which are more likely to be idiopathic.

In this study, neurocysticer... (50%) was the commonest cause, followed by tuberculoma (20%), idiopathic (13.33%), post stroke epilepsy (10%), brain tumour (3.33%), brain abscess (3.33%).

In the study performed by Perez Lopez JL, Longo J, et al. Late onset epileptic seizures. *Acta Neurologica Scandinavica* 1985;72(4):380-4 among 50 patients, 16 patients (32%) etiology could not be ascertained. Among the 34 symptomatic patients (68%), 16 patients (47.05%) had post stroke epilepsy, 1 patient (2.94%) had neurocysticer..., 3 patients (8.84%) had tumour, 3 patients (8.84%) had metastasis, 7 patients (20.58%) had metabolic etiology and 4 patients (11.76%) had infective etiology.(9)

As per the study of Pradeep PV, Balasubramanian R, Rao SN. Clinical profile and etiological analysis of late onset epilepsy. *JAPI* 2003;51:1192 etiology of seizure was Idiopathic(44%), Cerebrovascular accident (20%), Neurocysticer... (12%), Tumour (4%), Vascular malformation (4%), Mesial temporal lobe epilepsy (4%).(4).

As per the study of Srinivas P, Prasad Rajendra R, Naik Vasudeva H, Sreenivasa M, Suresh K. New onset seizures in adults: etiological and clinical profile. *JAPI* 2003;51:1191, Etiology of epilepsy was cerebrovascular accident(40%), space occupying lesion(12%), metabolic(12%).(11).

This variation in study might be due to geographical variation, low socioeconomic status and low rate of literacy prevalent in this region.

Further studies in this region are required to corroborate with the findings of this study.

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