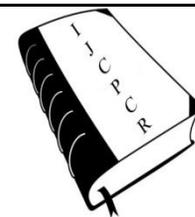




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ROLE OF DRUG OF CHOICE IN MANAGEMENT INTRACTABLE EPILEPSY

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ABSTRACT

To evaluate role of drug of choice in management of intractable epilepsy The majority of patients are young. In the study group the sex ration was almost equal. On categorizing the IE patients according to residence. Most of (92.2%) belongs to rural area. The main causes are – unhygienic conditions and a very high illiteracy rate. Lack of proper medical facility and good hospital could be another cause for high percentage of intractability of seizure in rural area.. According to educational status it is found that most of patients were illiterate having educational qualification below matriculation which lead to high rates of intractable epilepsy in this group. A large group of IE patients are unemployed (42.2%). Specific combination of AEDs in Intractable Epilepsy. Combination of phenobarbitone and carbamazepine was the most frequently used regimen in intractable epilepsy before changing the treatment regimen (41.1%), followed by phenobarbitone and phenytoin (36.7%), sodium valproate and clonazepam (10%). But after changing the treatment the most frequently used combination for intractable epilepsy are carbamazepine and clonazepam (40%) followed by carbamazepine and sodium valproate (37.8%).The use of phenobarbitone and carbamazepine combination has reduced and that of carbamazepine and sodium valproate combination has increased. Role of checking serum calcium levels in patients with Intractable Epilepsy In this study group it was found that around 53.3% of IE patients had a low serum calcium levels which is not producing classical signs of hypocalcemia namely tetany, peri- oral numbness but one patient had proven hypothyroidism.

Key words: EEG, Intractable epilepsy, Role of drug.

INTRODUCTION

Epilepsy is a group of neurological disorders characterized by spontaneous recurring seizures. It implies a periodic recurrence of seizures with or without convulsions. It is the most common serious neurological disorders and a global problem affecting all ages, social classes and countries. It is the second most common neurologic disorder after stroke. Epilepsy begins before the age of eighteen years in over 75% of patients [1]. Epilepsy means a tendency to have seizures and is a symptom of brain disease rather than a disease itself [2]. It is a major health issue and it imposes physical, psychological, social and economic burden on individuals, families and countries especially due to misunderstanding, fear and stigma. These problems are universal but are greatest in developing world were 85% of fifty million people with

Epilepsy live and up to 90% or more receive no diagnosis or treatment [3]. Coming to the Indian scenario a study by Sreedharan and Murthy estimated the prevalence of Epilepsy in India and concluded that based on total projected population in India in the year 2001[4], the estimated number of people with Epilepsy would be 5.5 million.

MATERIALS AND METHODS

The study was conducted at the department of Neurology in Century Hospital, Mulakuzha, Chenganur, Kerala. The department of Neurology our patient clinic. Design of study Prospective and Descriptive study .Duration of Study was Ten months Selection criteria Inclusion Criteria Patients who have a definite diagnosis

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of Epilepsy. Patients with more than two seizures per month. Patients is on regular treatment with antiepileptic drugs in modern medicine. Exclusion criteria Patients with

Pregnancy Patients with Pseudo seizures Patients with serious Neurological disorder other than epilepsy Sample size: 90 patients.

Table 1. Distribution of use of drugs in total population

Drugs	Before Changing treatment		After changing treatment	
	Number	Percentage	Number	Percentage
Phenobarbitone	38	42.2	21	23.3
Carbamazepine	20	22.2	36	40.0
Sodium Valproate	32	35.6	31	34.4
Lamotrigine	0	0.0	1	1.1
Phenytoin	3	3.3	2	2.2
Gabapentin	0	0.0	3	3.3
Clonazepam	7	7.8	10	11.1

Table 2. Percentage distribution of the sample according to specific combination of drugs

Specific combination	Before changing treatment	
	Number	Percentage
Phenobarbitone- carbamazepine	37	41.1
Phenobarbitone- Phenytoin	33	36.7
Phenytoin – Carbamazepine	6	6.7
Sodium valproate- Clonazepam	9	10.0
Others	5	5.6

RESULTS AND DISCUSSION

The majority of patients are young that is in the peak productive years of life. In the study group the sex ration was almost equal. On categorizing the IE patients according to residence, it is found that most (92,2%) belongs to rural area. The main cause is – unhygienic conditions and a very high illiteracy rate. Lack of proper medical facility and good hospital could be another cause for high percentage of intractability of seizure in rural area. A major part of the people in rural area is still ignorant about the advances made in the field of medicine. For them epilepsy is still a myth and its treatment are done by village sorcerer.

According to educational status it is found that most of patients were illiterate having educational qualification below matriculation which led to high rates of intractable epilepsy in this group.

A large group of IE patients are unemployed (42.2%). The reason for this could be 1.Inability to attend job due to intractable epilepsy. 2. Cognitive disability due to Intractable epilepsy or polytherapy.

Majority of the patients are diagnosed with complex partial seizure. But carbamazepine use was low in this subgroup. This study shows that rational use of adequate dose of carbamazepine is needed for reducing seizure in localization related epilepsy. For generalized epilepsy sodium valproate was under used. But after introducing sodium valproate in correct dosage, the intractability of seizure is decreased. On categorizing the IE patients according to frequency of dosing most of the IE patients are prescribed with twice daily dosing (78.9%)

followed by 12.2% once daily dosing and only 8.9% patients were taking thrice daily dosing. Majority of the patients are diagnosed with complex partial seizure. But carbamazepine use was low in this subgroup. This study shows that rational use of adequate dose of carbamazepine is needed for reducing seizure in localization related epilepsy.

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Monotherapy versus polytherapy

The present treatment of intractable epilepsy is primarily based on administration of appropriate AEDs after the correct identification of seizure type and accurate categorization of type of Epilepsy.

Although there was a long tradition of using several AEDs simultaneously for the treatment of epilepsy which may further lead to intractability in Epilepsy. So, it is now generally accepted that monotherapy or two drug therapies may be the best therapeutic option when an effective diagnosis has been established.

Seizure Frequency

On the initiation of treatment 43.3% patients had a seizure frequency of 1-3 seizures per month. At the time of

interview 24.4% were found seizure free. At the end of one month follow up 67.8% patients showed improvement by change in therapy since they comes under Engle score 0 i.e. Seizures free [11-15].

CONCLUSION

The majority intractable epileptic patients are remaining intractable due to wrong selection, dosing and poor compliance of drugs. Proper history regarding the

type of seizures, correlation with the EEG findings and proper selection of drug in its correct dosage is the most important aspect in the management of Intractable Epilepsy. Patient education regarding compliance to the drugs also is extremely important. In appropriate drug therapy based on in accurate diagnosis and misclassification of seizures and inaccurate estimation of seizure frequency contribute to the failure of conventional medical management.

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