|| ISSN(online): 2589-8698 || ISSN(print): 2589-868X ||
International Journal of Medical and Biomedical Studies
Available Online at www.ijmbs.info
Volume 2, Issue 6; November-December: 2018; Page No. 105-107
Original Research Article

COMPARATIVE STUDY OF CLOBAZAM USED AS AN ADD ON THERAPY WITH PHENYTION AND CARBAMAZEPINE IN REFRACTORY EPILEPSY.

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Article Info: Received 07 November 2018; Accepted 26 December. 2018
DOI: https://doi.org/10.32553/ijmbs.v2i6.113
Cite this article as: Kumar, Dr. K., & Lohani, Dr. K. (2018). COMPARATIVE STUDY OF CLOBAZAM USED AS AN ADD ON THERAPY WITH PHENYTION AND CARBAMAZEPINE IN REFRACTORY EPILEPSY. International Journal of Medical and Biomedical Studies, 2(6).
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Conflict of interest: No conflict of interest.

Abstract:
Refractory epilepsy is a failure of two (2) appropriately used anti epileptics (AED). This study Is a comparative study of clobzam use as add on with phenytoin and carbarnazepine.
Aims & Objectives: Aim of this study is to know how much Clobazam is effective as add on therapy in refractory epilepsy.
Material and Methods: In this study two refractory groups of epilepsy are selected. group - 1 is refractory with phenytoin and Group-II with Carbamazepine. Clobazam(10mg) was added to both refractory groups and follow up For 3 Years.
Results: There is significant reduction in seizure frequency after addition of clobazam in both refractory groups and 25% Patients were becomes completely seizure free.
Discussion: This study was conducted in ANMMCH, Gaya Patients were selected from both outdoor & Indoor of Medicine department and found 77.16% reduction in seizure frequency in group —I i;e with phenytoin and clobazam 78.16% in Group-II z;e with carbamazepine and clobazam and 25% Patients becomes completely seizure free.
Conclusion: Clobazam is a very effective and safe AED for add on Therapy.
Keywords: Refractory epilepsy Add on therapy mean seizure frequency

Introduction:

Epilepsy is a transient derangement of the central nervous system due to sudden, Excessive and synchronous discharge of cerebral neuron.

Refractory Epilepsy: It is a failure o adeciuate trial of two tolerated, appropriately chosen and used antiepileptic drugs (AEDS). (Whether as Monotherapy or in combination) to achieve sustained seizure freedom. Anticpileptic drugs (AEDS) administration as Monotherapy is the preferred treatment regimen for epilepsy. The combination of two or more

conventional AEDS increases toxicities to a great extent and thus, there is a need for AED having good efficiency but lesser side effected and it should be compatible with other AEDS.

Clobazam was introduced as an anxiolytic agent in 1975. Its antiepileptic activity was recognised after 1978. It is broad spectrum antiepileptic drug useful in almost all types of epilepsy though with variable results. It is very well tolerated with mild side effects it is an excellent second line therapy in resistant or refractory epilepsy. It is a GABA receptor Agonoist. It enhances the current through the channel in a dose dependent manner at concentration up to 30 umol.

In this study 58 refractory Seizure patients were selected and divided in two groups.

Group-I: It was refractory to optimum dose of Phenytion.

Group-II: It was refractory to optimum dose of Carbamazepine.

Group-I comprises of 30 refractory epileptic patients (16 Male and 14 female)

Group-Il comprises of 28 refractory epileptic patients (15 males & 13 females)

Now Clobazam was added in both groups 10mg per clay as single dose at bed time and followed by 3 years.

In our study 15 patients (25.86%) patients became complete seizure free. 8 patients from group —1 and 7 patients from group-II. group-I achieved 77.16% reduction it means seizure frequency (MSF) per month and group-II 78.16% reduction in mean seizure frequency per month.

Materials and Methods:

This study was conducted in ANMMCH, Gaya. 58 Patients were selected from both OPD and Indoor patients of the medicine department.

Selection Criteria:

Patient's refractory to conventional Monotherapy (z.e) phenytoin and carbamzaepine with optimum doses and proper compliances.

Exclution Criteria:

01. Pregnant and nursing women

02. Patients below 16 years of age

03. Patients with sever hepatic and renal disease.

04. Patients with concomitant use of drugs like lithium, antidepressants and antiepleptic were excluded.

Investigation:-

CBC

LIT

KFT

Electrolytes

ECG

CT Scan of Brain with Contrast:

MBI of Brain with epilepsy protocol.

Study and Design:

Group- I: Patients receiving phenytion 5mg/kg along with Clobazam 10mg.

Patients were followed up to 3 years.

Group-II: Patients receiving carbamazepine 25mg/kg and Clobazam 10mg daily and followed for 3 years.

Observation:

This study was conducted in 58 patients. These patients were refractory to both phenytoin and carbamazepine, clobazarn was added to both groups and followed for 3 Years.

Among 58 patients 25% (15) becomes completely seizure free during study.

Table 1: Effect of clobazam in reduction of mean seizure frequency (MSF).

Sl. No.	MSD (before adding clobazam)	MSF after adding Clobazam	Change in MSF	Percentage (%)	P-Value
Group-I	6.92(+-) 2.82	1.57+-3.03	5.35+-1	77.16	<0.01
Group-II	6.87(+-)2.59	1.50+-2.26	5.37+-2.31	78.16	<0.01

This lable is showing effect of Clobazam as on add on therapy in reducing MSF(Mean seizure frequency) Patients of group-I had MSF 6.92+-2.82 per month before addinig clobazam and it comes, down to 1.57 (+-) 3.03 per month and **P**-value is <0.01. this means change or reduction of MSF is statically significant.
Patients of group—II had MSF 6.87+- 2,59 per month before adding clobazam and it goes down after adding clobazam to 1.50+- 2.26 per month and **P**-value is <0.01. this means change in MSF is statically significant.
Group-I: Patients had reduction in MSF is 5.35+- 1.00 i.e. change is 77.16%.
Group-II: Patient observed a reduction in MSF is 5.37 +— 2.31 i.e. change is 78.16%.

Table 2: Complete seizure free patients with add on therapy (n-15) for 3 years.

Group	Male	Female
Group- I	05-(62.5%)	03 (27.5%)
Group-II	04 (57.14%)	03 (42.8%)

This table is showing that with add on l:herapy 15 (25%) patients becomes completely seizure free and among these in group-I 05(62.5%) were male and 03(37.5%) were female and in group—II 04 (57.14%) were male and 03(42.8%) were female becomes completely seizure free with clohazarn.

Discussion:

This study was conducted in ANMMCH Gaya and patients were selected from OPD and Indoor of medicine department. 58 patients were selected and followed from 3 years selected patients were divided in to 2 groups and clobazam was added to both groups and followed from 3 years. Both groups had statistically significant reduction in meaning Seizure frequency (MSF). **Group- I)** Achieved 77.16% and **group-II**) is 78.16% reduction in MSF per month.

25% patient becomes complete sezuire free from 3 years (study period). None of this patient developed tolerance during out study but a long term follow-up of is needed to assess actual incidence. So clobazam is an equally effective add on drug in both groups refractory to conventional Monotherapy.

Conclusion:

Following conclusion are to be drawn from the present study conducted in **58** patient refractory to phenytoin and carbamenzapine after adding clobazarn 10mg at bed time then 25% refractory patients becomes completely seizure free. **Group- I)** i.e patients receiving phenytoin and clobazam achieved 77.16% reduction in mean seizure frequency per month and **Group-ii**) i.e. patients with carbamazepine and Clobazam achieved 78.16% reduction in mean seizure frequency per month.

Clobazam is a well tolerated, safe and very effective AED for refractory epilepsy.

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