SOME STUDIES ON EPILEPSY IN NEPAL

Prevalence of Generalized tonic clonic seizures in a household survey in Morang District was 7.33 per thousand population (Nepal MK, Sharma VD and Shrestha P. *Epilepsy Prevalence: A case study of Morang District).*

Among 180 subjects with epilepsy attending a regional hospital, Pokhara 70% had presented with GTCS, 20% with focal seizures with secondary generalization, and 8.8% with Temporal lobe epilepsy (Upadahayay KD. Study of epilepsy cases seen in psychiatric OPD in Western Regional Hospital).

A community study in Kaski district revealed that on an average female patients waited more than male (8 years vs. 5 years) before seeking medical help (Finkebine RD, Acland S and Finkebine SS. Epilepsy at four village health post in Kaski)

In a hospital based study Dr. Rajbhandari KC has found albendazole to be more effective than praziquantal in all types of neurocystecercosis.

WORTH TO KNOW

The incidence of epilepsy in most of the countries is 50-70 cases per 100, 000 population.

The prevalence of epilepsy is 5-10 cases per 1000 population.

POINTS TO REMEMBER

Patients who are treated, as partners in decision-making are generally more satisfied with their decision and their outcome.

Patients who understand epilepsy are more likely to comply with their medication regimens and have less fear of seizures.

When patients with epilepsy have inadequate or incorrect knowledge of their disorder, the consequences may increase the costs of care.

Poorly informed patients may take extra doses of antiepileptic drugs out of fear of having seizures, or omit doses due to low funds or fear of addiction or harmful effects of medication.

Misunderstandings can lead patients to unnecessarily restrict their recreational and work activities.

DO YOU KNOW?

Of the approximately 2 million patients with epilepsy who are treated with antiepileptic drugs, 20% experience seizures refractory to medication; these patients account for 75% of the costs of epilepsy (Engel, 1996). From 1982 to 1990 the general costs of established epilepsy in UK was estimated at &1930 million, with each patient accounting for average initial direct costs of &611 per year (Cockerell et al, 1994).

NOTICE

Nepal Epilepsy Society has been formed by a group of physicians actively involved in the care of epileptic patients on 7th July, 1999. The following is the formation of the present executive body:

Adviser: Dr. S Koirala
Chairman: Dr. M K Nepal
Vice Chairman: Dr. J P Agrawal
Gen. Secretary: Dr. K C Rajbhandari
Treasurer: Dr. A Shrestha
Members: Dr. K K Kafle, Dr. R K Adhikari, Dr. V D Sharma, Dr. A Neupane, Dr. S Rijal

NON GOVERNMENT ORGANISATIONS INVOLVED IN EPILEPSY CARE

The different NGO's working for the care of the epileptic patients in Nepal are as follows:

- Nepal Epilepsy Association
- The Korean Rose Club and the Gauri Shankar Hospital
- United Mission to Nepal through its different community mental Health Programs.
- Mental Health Project Institute of Medicine, through its different community mental Health Programs.
- Society for Epilepsy Care of Nepal.

We are happy to announce that Nepal Epilepsy Society is bringing forth this news letter for the benefit of physicians and all other personal working towards the care of epileptic patients. We will be happy to incorporate news, abstracts and suitable information that may be of benefit to the concerned people

TOPIRAMATE (TPM) A NEW ANTIEPILEPTIC DRUG

Topiramate, a sulfamate substitute monosaccharide has recently been introduced as an antiepilpetic. Mechanism of action is complex and at multiple sites, which involves modulation of voltage dependent sodium channels, enhancement of GABA mediated inhibitory neurotransmission, antagonism of gultamate receptors and inhibition of carbonic anhydrase. TPM has many desirable characteristics - rapid absorption, minimal binding of plasma proteins, no enzymatic induction and linear kinetics. However its metabolism is inducible by carbamazepine and phenytion.

It is effective in adults with refractory partial epilepsy with 50-75% reduction in seizure frequency. In adults, monotherapy with TPM for partial onset seizures was shown to be effective and safe.

Adverse effects are mild and related to neurological toxicity - dizziness, mental slowing, somnolence, ataxia, impaired concentration and confusion. Most of these are transient and observed during the initial weeks of therapy. Anorexia and mild weight loss has been observed during the therapy. A high incidence of nephrolithiasis is also observed and is related to inhibition of carbonic anhydrase.

FEBRILE CONVULSION: SOMETHING WORTH TO KNOW

Age: 3 months-5 years, with no evidence of intracranial infection or defined cause.

Incidence is 2-5% before age of 5 years.

Family history is present in 10% of cases.

Simple febrile convulsions are brief, single, bilateral, tonic-clonic in a child with normal development.

Complex febrile convulsions lasting more than 15-20 minutes, repeated with in 24 hours, unilateral seizures, followed by Todd's palsy.

Recurrence rate is 33%, more often seen in children presenting at less than one year of age, with a positive family history, and with complex febrile seizures.

Risk of epilepsy-3% (0.5% in general population)

Regular treatment with phenobarbitone and valporate will reduce the risk of recurrence. However the risk is small and in most cases outweighs the effects of hyperkinesis, cognitive dysfunction with phenobarbitone and liver toxicity with valporate. Diazepam given orally or rectally is also effective in reducing further febrile seizures. More recently oral clobazam has been used effectively for febrile convulsions. It has been found as effective as rectal diazepam.

MECHANISMAS OF ACTIONS OF ANTIEPILEPTIC DRUGS

1. Blockade of high frequency repetitive firing of neurons through action on voltage sensitive sodium channels (phenytoin, carbamazepine, valporate, lamotrigine, felbamate topiramate, and gabapentin).

2. Enhancement of GABA mediated inhibitory function (phenobarbitone, vigabatrin, topiramate, felbamate, zonismide and tiagabine)

3. Blockade of "T" type of voltage calcium channel(ethosuccimide valporate, zonisamide and gabapentin)

4. Decrease in glutamte medicated excitation (lamotrigine, felbamite and topiramate)

CLASSIFICATION OF SEIZURES ACCORDING TO ILAE (Porter, 1993)

1. Partial seizures

- Simple-partial seizures (with motor, sensory, autonomic, or psychic signs)
- Complex-partial seizures
- Partial seizures with secondary generalization

2. Primarily generalized seizures

- Absence (petit mal)
- Tonic-clonic (grand mal)
- Tonic
- Atonic
- Myoclonic

3. Unclassified

- Neonatal seizures
- Infantile spasms.

HOW LONG SHOULD A CHILD WITH EPILEPSY RECEIVE ADS,s ?

A number of authors feel that a 2 year seizure free period on AEDs is enough for withdrawal and strongly advise a trial of withdrawal after 2 seizure free years. Although it is agreed that AEDs should be withdrawal gradually, controversy exists over the duration of withdrawal. A three to four month period of withdrawal in children would be reasonable.

(Referance: MJ Brodie; D shorvon; S Johannessen et al. Appropriate standards of epilepsy care across europe. International Epilepsy News , 131, March-April, 1998).

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