

Case Report**CLINICAL AND PHARMACEUTICAL MANAGEMENT OF AN EPILEPTIC PATIENT; A CASE REPORT****Anam Maqsood, Farah Azhar**

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ABSTRACT

Epilepsy is a brain disorder in which a person has repeated seizures (convulsions) over time. There is geographic variation in the incidence of epileptic syndromes likely to be associated with genetic and environmental factors, although as yet causality has not been fully established. The complete range of etiologies in the general population is not known. Few predictors of outcome are recognized and it is difficult to prognosticate in any individual case. Knowledge is patchy about the epidemiology of sudden unexpected death in epilepsy. Future epidemiological research needs to address these issues if we are to progress. A 21 years old male with epilepsy came to the local hospital, Rawalpindi with chief complaints of body stiffness, unconsciousness, constipation and unable to swallow food for 16 days. His physical examination showed blood pressure 110/70 mm Hg, pulse 80 per minute, temperature a febrile. On the basis of his physical and medical examination, the physician prescribed tablet Phenobarbitone 15mg oral BID (two times a day); tablet Tegral® (carbamazepine) 200 mg oral BID; tablet Famot® (famotidine) 40 mg oral TDS (three times a day). Prescribed doses of Famotidine and Carbamazepine are according to the reference book recommendations but dose of Phenobarbitone is found to be less than recommendations of reference book. The main protocol of treatment is to avoid the occurrence of seizures by maintaining an effective dose of antiepileptic drugs which are adjusted to give maximum therapeutic outcomes with minimum adverse consequences. Therefore, for the treatment of epilepsy a careful adjustment of doses is necessary, starting with low doses and increases gradually until seizures are controlled and there are less significant adverse effects. Therefore; the comprehensive clinical examination and therapeutic care is needed that will help to avoid the undesired health related consequences.

Key Words; Epilepsy, Phenobarbitone, Carbamazepine, Combination therapy

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INTRODUCTION

A brain disorder - epilepsy indicated by repeated seizures (convulsions) over time. Seizures are episodes of disturbed brain activity that cause changes in attention or behavior. Symptoms vary from person to person. Some people may have simple staring spells, while others have violent

shaking and loss of alertness. The type of seizure depends on the part of the brain affected and cause of epilepsy. Most of the time, the seizure is similar to the previous one. Some people with epilepsy have a strange sensation (such as tingling, smelling an odor that isn't actually there, or emotional changes) before each seizure. This is called an aura.

Moreover, the epilepsy is the most serious neurological conditions globally prevalent among five to ten cases per thousand people. The research findings have revealed a variety of epidemiological models of around the world. The overall burden of epilepsy is not fully evaluated and understood. Therefore, the generalized seizure is considered as the most common type of epilepsy in approximately every where in world. The authenticated informations about epilepsy are still extremely low (1).

WHO reported about 50 percent of cases begin at childhood or adolescence; 70 -80 percent could lead normal lives if treated properly. The medical experts have articulated their grave concern over the high occurrence of this disease; approximately 1.2 percent patients exist in Pakistan. There are approximately 50 million epilepsy patient noted worldwide; about 85 percent of these patients are living in developing countries. However, Pakistan is leading the world in terms of having high prevalence of the disease (2). Moreover; it is commonly perceived that the patients are commonly precipitants of major syndromes of fever and emotional disturbances. Whiel, few of epileptic persons believed that their illness was due to supernatural causes. Treatment status was very poor, with low recovery rate in rural as compared with appropriate therapeutical outcome inn urban epileptic persons receiving treatment at same time (3).

CASE PRESENTATION

A 21 years old male was presented to the local hospital, Rawalpindi, Pakistan with chief complaints of body stiffness , unconsciousness, constipation and unable to swallow food for 16 days. His physical examination showed blood pressure 110/70 mm Hg, pulse 80 per minute, temperature afebrile. He was having pinpoint pupil. His medical findings showed normal cardiovascular (S1, S2 + 0) and pulmonary examination and his gastro intestinal tract was soft and non tender. He was mentally unconscious at the time of presentation

His past medical history showed that patient was epileptic since he was 3 months old i.e. he has this history of epilepsy for past 21 years but no continuous treatment of antiepileptic drugs is present in the past drug history of the patient. He is mentally and physically abnormal. He was also having a disease record of pneumonia and jaundice for which he has been given medicines and treated successfully.

He was admitted previously with complaints of vomiting and epileptic fits and somehow treated and was discharged due to some reasons. His social and family history was not much satisfactory and he cannot afford expensive medicines. This is the key factor in his irrational treatment of epilepsy as he cannot bear the expenses of his treatment.

On the basis of his physical and medical examination, the physician prescribed the tablet Phenobarbitone 15mg oral BID; tablet Tegral® (carbamazepine) 200 mg oral BID; tablet Famot® (famotidine) 40 mg oral TDS; and prescribed him the following lab tests for the

detection of any other secondary infection; these tests were Blood CP (Blood Complete Picture), LFTs(Liver Function test), ESR(Erythrocyte Sedimentation Rate), RFTs(Respiratory Function Test) and CXR(Chest-X Ray). The clinical findings show only epilepsy as primary infection and no other prominent secondary infection was detected.

Patient B.P remained almost normal throughout the therapy, his temperature was afebrile during his stay in hospital, and his cardiovascular and pulmonary systems also reveal no complications during the whole time period. But for almost 2 weeks the patient remained unconscious throughout the therapy plan and after 2 weeks he gained his consciousness but his recovery was not at all satisfactory. He was not in a position to take anything by mouth. He was also suffering from constipation throughout the time period. He was on total parenteral nutrition and was having all the essential food components through IV line. Although treatment is being carried out but the sad fact of the case is that the patient was discharged after 2 weeks due to the reason that he was unable to pay the hospital expenses.

DISCUSSION:

The dose regimen of tablets Tegral® and Famot® prescribed according to the specifications. But; the dose of tablet Phenobarbitone was noticed less than the recommended dose which is 60-180 mg at night i.e. OD (once a day).

Patsalos et al., [4], reported that the extent and direction of interactions between the different antiepileptic drugs are varied and unpredictable. According to B.R.Thapa et al.,(5), there a significant interaction occurs when Phenobarbitone is taken because it often lowers the plasma concentration of Carbamazepine. So low doses of Phenobarbitone are required due to combination regimen and level of plasma blood needs to be monitor. Phenobarbitone is known to cause the hepatitis and patient has already a past medical history of the jaundice, so it should be administered cautiously and dose adjustment should be done. In a research article it is mentioned that drugs like, phenobarbitone, cimetidine, frusemide and Phenytoin may increase levels of alkaline phosphatase and may lead to liver injury and hepatitis.

Besides this, the patient has the symptoms of constipation for 16 days and his situation aggravates as a result of Tegral® administration because carbamazepine has a side effect of causing constipation which can lead to a build-up of toxins in the system and may lead to an increase in seizures. Alan B et al., 1992 also support that carbamazepine causes constipation and should be used with caution in patients that are having epilepsy and constipation together.(6)

Moreover; Famotidine are prone to cause cholestatic jaundice and interstitial pneumonia and patient has already showing a disease record of pneumonia and jaundice so it needs intensive therapeutical monitoring. Joo Hyun Sohn et al., 1998 also states that the incidence of jaundice caused by Famotidine is increased to several folds and the liver function must be monitored carefully if Famotidine is to be prescribed and dose adjustment or substituent therapy may be employed. (7). Kantorova I et al., says that famotidine does cause an increase in risk in pneumonia (8). As the patient was already having a disease history of pneumonia so care must be exercised in prescribing famotidine to these types of patients. Then the reason of prescribing famotidine was also unclear as no related clinical symptoms are there that necessitates that

doctors should exercise more caution and extra efforts should be made by them to move a step forward towards rational prescribing.

CONCLUSION:

An effective combination therapy with low dosed should be recommended to avoid the reoccurrence of seizures adverse effects. Moreover; the comprehensive clinical examination and therapeutical care also help to avoid the undesired health related consequences. The concomitant safe use of laxative fiber agent may be introduced in treatment plan to reduce the intensity of constipation.

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