NON-COMPLIANCE TO ANTI-EPILEPTIC TREATMENT: REASONS AND FACTS.

ABSTRACT:-

OBJECTIVE: To determine the reasons for non-compliance with treatment in epileptic patients.

STUDY DESIGN: Descriptive.

PLACE AND DURATION OF STUDY: Department of Medicine Peoples Medical College Hospital Nawabshah from 1-1-2008 to 31-12-2009.

MATERIAL AND METHODS: Ninety six known cases of epilepsy with poor control of seizures due to non-compliance with Anti-Epileptic Drugs (AED) were enrolled. The reasons for non-compliance as described by the patients in their own words were documented. All such cases were admitted in the medical ward so that the subsequent compliance can be monitored. Routine lab. work, EEG, CT Scan of brain were done in all cases.

RESULTS: Of the ninety six cases, 92 were males and 4 were females. Age ranged from 15-35 years. Majority (83.3%) never attended a school. Most of them were the residents of small rural communities. All cases had generalized tonic-clonic seizures (grand mal epilepsy). In 41.7% poverty was the reason for discontinuing the therapy. Another 41.7% patients stopped taking AED on improvement. 12.5% considered epilepsy as a ‘supernatural’ event. While 4.1% switched over to alternative medicines (herbs) at their own will. In 95.8% seizures remained under control once their AED were restarted.

CONCLUSIONS: Poverty and lack of knowledge regarding the proper treatment of epilepsy appears to be the common reasons for non-compliance in our patients. Better socio-economic conditions and better awareness of epilepsy especially among the rural masses will help in improving the compliance and in better seizure control.

KEY WORDS: Epilepsy, Treatment, Non-compliance, Rural

INTRODUCTION:

Epilepsy is a common neurological disorder. Higher prevalence of epilepsy is reported in the rural areas of Pakistan than in the urban areas. In majority the epileptic seizures can be successfully treated with anti-epileptic drugs (AED). However, recurrent seizures due to non-compliance with treatment remains a major issue in the long term management of epilepsy. Compliance is generally defined as the extent to which the patient follows the care-givers’ advice with respect to taking medication, following a diet, modifying habits or attending clinics. Thus the patients’ variance from this definition would be considered as non-compliance.

Various factors for non-compliance with treatment in epilepsy has been previously reported but no such study has been done in our region. It is important to address this issue since the impact of non-compliance affects both the patients and the state in terms of outcome and cost. Given the magnitude of illiteracy, limited health resources and uncertain economic conditions, we suspect a sizeable number of patients with epilepsy in our population would be non-compliant to treatment. The purpose of this study was to determine the subjective reasons for non-compliance in epilepsy patients coming to our hospital.

MATERIAL & METHODS:

A total of ninety-six patients with a known history of epilepsy who were reported to be non-compliant to previous treatment were enrolled during the period 1-1-2008 to 31-12-2009. The history of non-compliance was based on self-confessional statement.
that they were not taking anti epileptic drugs (AED) regularly and that there was a direct relationship to drugs intake and seizures’ frequency where as long as they were using AED seizures stopped occurring and once they stopped using AED the seizures started recurring again. All such cases were admitted in the medical ward so that the subsequent compliance can be monitored. Routine Lab. work, EEG and CT Scan of brain were performed in all cases to rule out any diagnostic uncertainty. History of AED used in the past was recorded by checking the previous prescriptions or by identifying the bottles or tablets available with the patients. The reasons given for non-compliance as described by the patients in their own words were documented.

RESULTS:
Of the ninety-six cases, 92 were male and 4 were female (Figure 1). Age ranged from 15-35 years. Age and gender distribution is given in Table 1. All cases had generalized tonic–clonic seizures (grand mal epilepsy). CT Scans of brain were unremarkable for any focal or diffuse abnormality. EEG reports were correlated with the clinical findings. Eighty out of ninety-six (83.3%) never attended school and only 16/96 (16.7%) were educated (Figure 2). Most of them were the residents of small rural communities. The common reasons given for the non-compliance are shown in Table 2. In 40/96 (41.7%) poverty was the reason where they said they could not afford to purchase AED on a regular basis. Forty out of ninety-six (41.7%) patients stopped using AED on improvement with a misconception that their disease was cured. Twelve out of ninety-six (12.5%) had false beliefs regarding epilepsy and they perceived it as a supernatural event (possession by a evil spirit or ‘fakir’). Four out of ninety-six (4.1%) switched over to alternative therapy (herbs) at their on will. None of the cases discontinued AED because of the adverse effects. In 92/96 (95.8%) seizures remained under control once their AED were restarted.

DISCUSSION:
For optimal seizure control good compliance with AED is essential. Understandably, compliance with treatment is possible when there are no ‘barriers’ in the way of patient for following the physicians’ advice. For example if we consider the socio-economic barrier (poverty), 41.7% of our cases were financially weak to the extent that they could not purchase AED on a regular basis. This observation is similar with an international data from Peru where the

![Figure 1: Gender Distribution](image1)

![Figure 2: Education](image2)

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<thead>
<tr>
<th>Table 1: Age and Gender Distribution</th>
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<tbody>
<tr>
<td>Age Group</td>
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<tr>
<td>(years)</td>
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<tr>
<td>15 – 20</td>
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<td>21 – 25</td>
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<td>26 – 30</td>
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<td>31 – 35</td>
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<td>Total</td>
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<th>Table 2: Reasons for Non-Compliance</th>
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<tr>
<td>Reasons</td>
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<tr>
<td>No. (%)</td>
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<tr>
<td>Poverty</td>
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<td>Stopped on improvement</td>
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<td>False believes</td>
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<td>Alternate therapy</td>
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<td>Total</td>
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most frequent reason given by the patients for non-compliance was also the same i.e inability to purchase medicines. Given the magnitude of poverty in our region, prescribing cheaper AED to the poor patients is likely to improve the compliance as there are reports indicating better compliance when cheaper AED like phenobarbitone was prescribed 7. With regard to degree of compliance verses patients’ socioeconomic status, education levels and rural /urban divide, our observations differ from the Iranian study 7 where no such differences were found. The reason for this discrepancy could be that our patients’ concentration was mainly from the rural areas where the poverty is high and the literacy levels are very low. Over 83% of our cases never attended a school. Furthermore, our patients were adults (≥15years) who can make their own choices and they also confessed they were non-compliant so there was no ambiguity with respect to their compliance. Whereas, in the Iranian study 7, patients were <18 years old (children and adolescents) and they were receiving treatment under the supervision of their parents where a better compliance is expected. Also, their findings 7 were based on the interviews taken from the families. Such interview-based information may be on the interviews taken from the families.

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CONCLUSIONS:

Poverty and the lack of knowledge regarding proper treatment of epilepsy appears to be the common reasons for non-compliance in our patients. Better socio-economic conditions and better awareness of epilepsy especially among the rural masses will help in improving the compliance and in better seizure control. Given the ground realities, the overall outlook for epilepsy and its management complex and need further research.

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REFERENCES:


