



Assessment of Quality of Life, Depression, Anxiety and Suicidal Tendencies in Patients with Epilepsy: A Hospital Based Study

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Abstract

Epilepsy is generally associated with decrease in the quality of life of patients, it causes depression, anxiety and suicidal tendencies in patients. We are conducting this study to test whether the patients are having these symptoms or not. The aim of our study is to assess the patients quality of life, To assess the depression, To assess the anxiety, To assess the suicidal tendencies, Explain the patient about their disease, Help them improve their quality of life, decrease their depression, anxiety and suicidal tendencies through counseling. Standard validated questionnaires: QOLIE-31, GRID-HAMD-17, HAMILTON ANXIETY SCALE (HAM-A), COLUMBIA-SUICIDE SEVERITY RATING SCALE (C-SSRS). Co morbidities in epilepsy are very common and the early detection of such disorders should be done and treated. If unrecognized, it would significantly affect it adversely. The following conclusions were drawn from the analysis of the data. The assessment was found to be effective as the patients were discovered with the related co morbidities of epilepsy and reported.

METHODOLOGY

Study Sample Size: 85 Patients

Study Design:

It is a prospective observational study.

Study Site:

The study will be conducted in Department of neurology, Krishna institute of medical sciences (KIMS) Hospital. 700 bedded multispeciality teaching hospital.

Study Period:

This study is proposed to be conducted from Nov 2012 to April 2013.

Tools Used:

Standard validated questionnaires:

- QOLIE-31 (Quality Of Life In Epilepsy-31) See Annexure 2
- GRID-HAMD-17 (Grid-Hamilton Rating Scale For Depression) see annexure 3
- HAM-A (HAMILTON ANXIETY SCALE) see annexure 4
- C-SSRS (COLUMBIA-SUICIDE SEVERITY RATING SCALE) see annexure 5

Study Population:

The study was carried out in KIMS hospital and a total of 86 patients were enrolled in it.

Inclusion criteria: Epilepsy patients with depression and anxiety, adults above 18 yrs up to 50 yrs of both genders.

Exclusion criteria: Alcoholic, psychotic disorders- schizophrenia and bipolar disorders, head injuries, secondary neurological conditions, other physical injuries and any other form of disorders, children, pregnant women.

Procedure:

- ➔ This is an observational study carried out in KIMS hospital on the patients having epilepsy including both males and females.
- ➔ The patients are selected based on the inclusion criteria.
- ➔ A patient proforma is designed to collect patient's details such as name, age, sex, height, weight, his/her present illness, family history, on set of seizures, number of attacks, area of living, socio-economic status, employment status, marital status etc.
- ➔ The above information given by the informer is filled in the proforma.
- ➔ The patients are assessed based on the standard questionnaires which are validated and reliable on quality of life, depression, anxiety and suicidal tendencies.
- ➔ The scoring of the scales is done and the performance of the patient is assessed.
- ➔ Later on the statistical evaluation is to be done using different statistical tools.

PLAN OF WORK

Designing patient proforma form and protocol.



Approaching the Ethical committee for approval to carry out the study



Identification of patients with epilepsy as per inclusion and exclusion criteria.



Taking consent from the patient



Collecting data from the patient and assessment of Quality of life, Depression, anxiety and suicidal tendencies



Statistical evaluation of data



Report

RESULTS AND DISCUSSION

Quality of life:

A Quality of Life is a phrase used to refer to an individual’s total well being. This includes all emotional, social and physical aspects of the individual’s life. During our study in the assessment of quality of life the following results were found:

Table 1: Scores of quality of life assessed by QOLIE-31

Data	Poor	Average	Good	Very Good
Normal score	0-40	41-60	61-80	81-100
Quality of Life	0(0%)	31(36%)	50(59%)	4(5%)

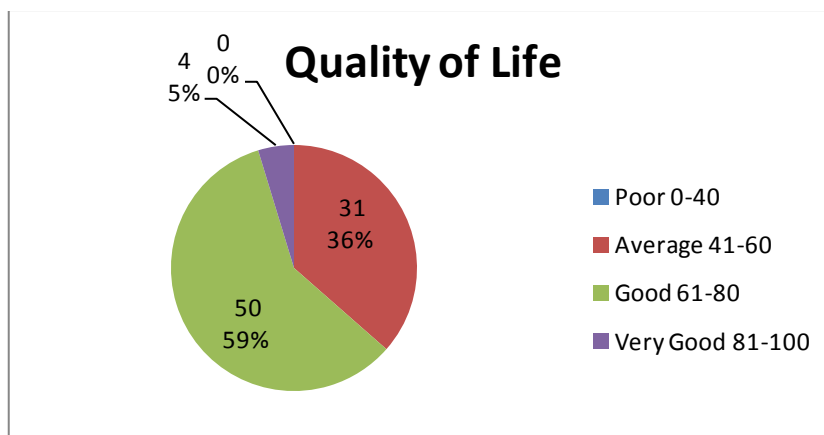


Fig 1: Quality of life chart

In our sample study of 85 patients none of the patients showed poor quality of life. 36% of patients showed average quality of life. 59% of patients showed good quality of life and 5% of patients showed very good quality of life.

More than 60% of the patients showed above average quality of life which shows that the quality of life of epilepsy patients is not much adversely affected because of the disease. The patients who showed average quality of life have decreased quality of life not only because of the disease but also other factors such as economic and financial conditions, education.

Comparison between the quality of life of male and female patients : The following results were found in the comparison:

Table 2: Comparison between the Quality of Life of male and female

Quality of life rating	Poor QOL	Average QOL	Good QOL	Very good QOL
Males	0	15	27	2
Females	0	16	23	2

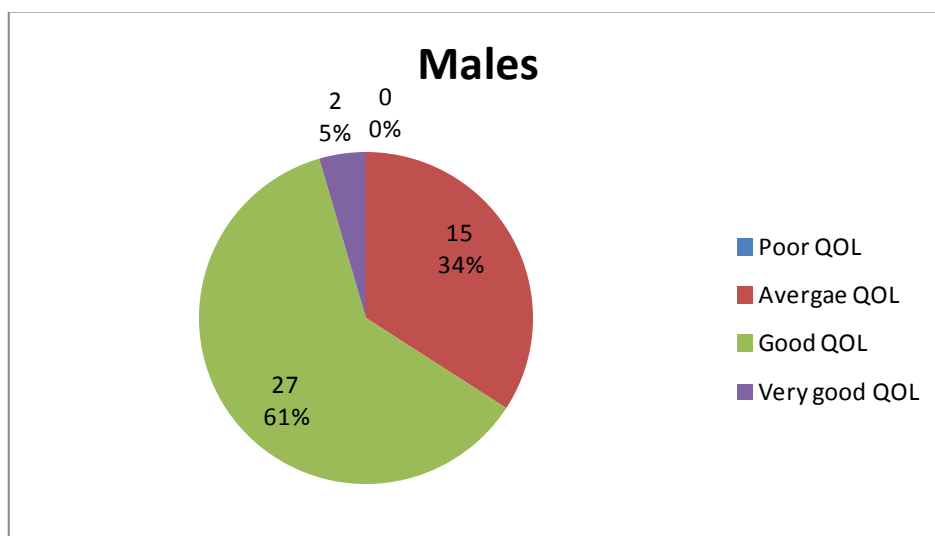


Fig 2: Percentage of Quality of Life in males

In the above comparison between the quality of life of male and female patients 44 male patients were included out of which none of the male patients have poor quality of life, 34% of patients(15) showed average quality of life, 61% of patients (27) showed good quality of life, 5% of patients(2) showed very good quality of life.

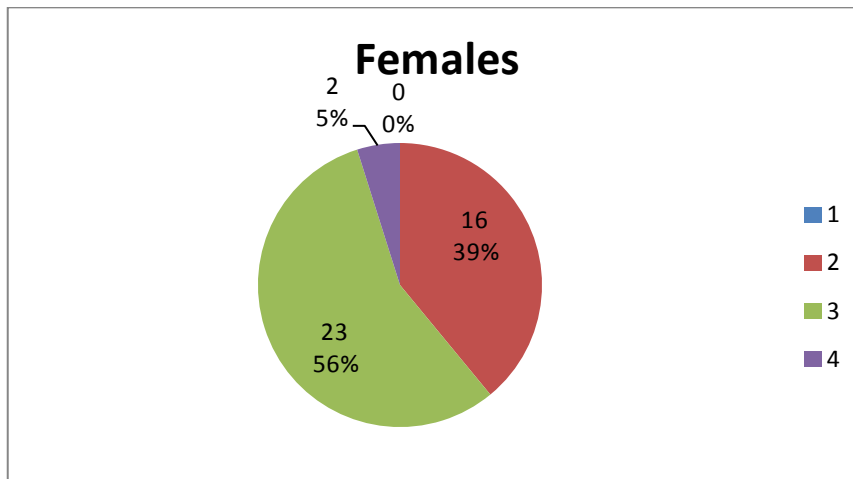


Fig 3: Percentage of Quality of Life in females

In the above comparison between the quality of life of male and female patients 41 female patients were included out of which none of the female patients poor quality of life, 39% of patients(16) showed average quality of life, 56% of patients (23) showed good quality of life, 5 % of patients(2) showed very good quality of life. The comparison between the quality of life of male and female patients shows that female patients have a better quality of life than male patients.

Comparison between the quality of life of patients with different age groups : The following results were found in the comparison.

Table 3: Comparison between Quality of Life of patients with different age groups

Quality of life rating	Poor QOL	Average QOL	Good QOL	Very good QOL
Age group 18-30	0	12	16	1
Age group 31-40	0	6	10	1
Age group 41-50	0	4	14	2
Age group 51-60	0	9	10	0

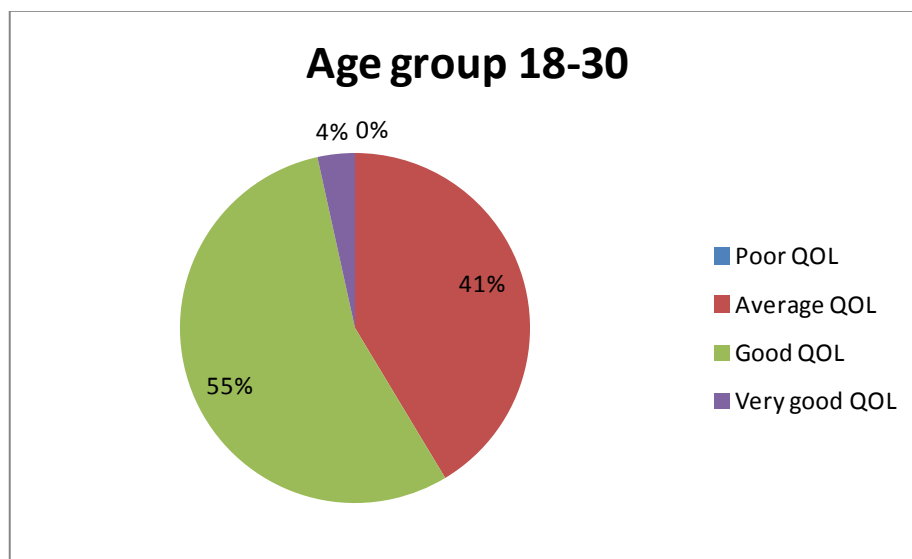


Fig 4: Quality of Life of patients between age group of 18-30

In the age group of 18-30, 41% of patients showed average quality of life, 55% of patients showed good quality of life, 4% of patients showed very good quality of life.

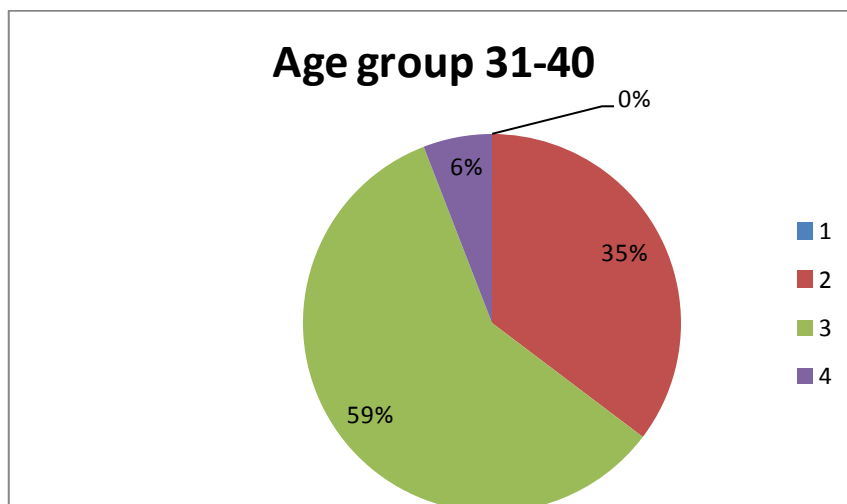


Fig 5: Quality of Life of patients between age group of 31-40

In the age group of 31-40, 35% of patients showed average quality of life, 59% of patients showed good quality of life, 6% of patients showed very good quality of life.

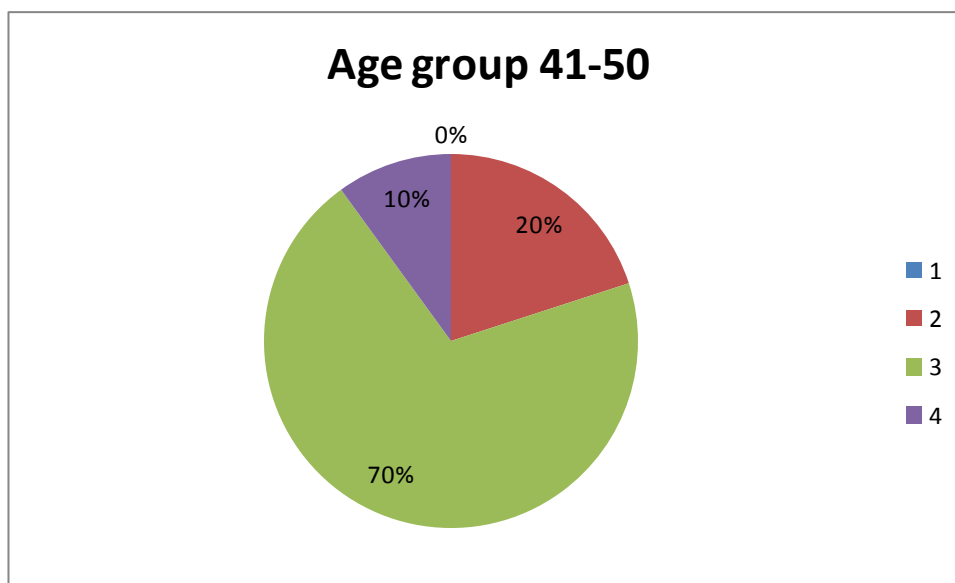


Fig 6: Quality of Life of patients between age group of 41-50

In the age group of 41-50, 20% of patients showed average quality of life, 70% of patients showed good quality of life, 10% of patients showed very good quality of life.

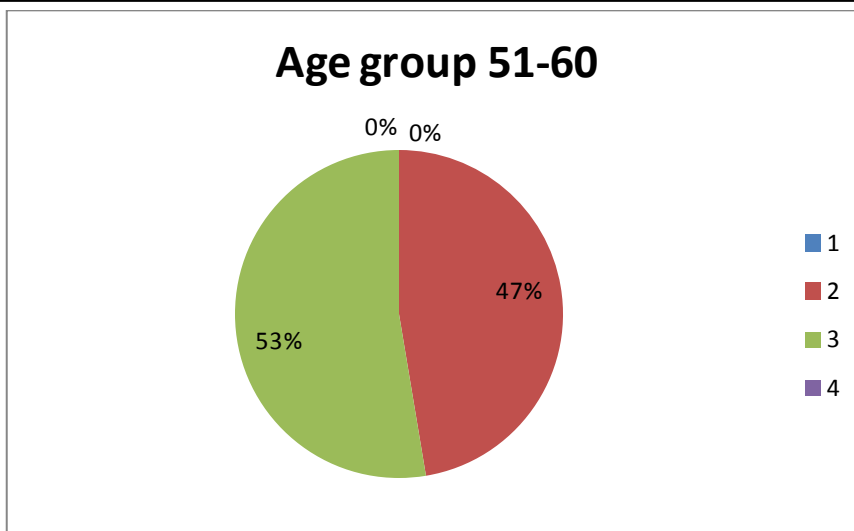


Fig 7: Quality of Life of patients between age group of 51-60

In the age group of 51-60, 47% of patients showed average quality of life, 53% of patients showed good quality of life and none of the patients showed very good quality of life.

In the above comparison the age group of 41-50 showed the best quality of life.

Depression:

During our study in the assessment of depression the following results were found:

Table 4: Severity of Depression

Data	Mild Depression	Moderate Depression	Normal	Severe Depression
Normal score	8-13	14-18	0-7	Above 18
Depression Rating	36	26	21	2

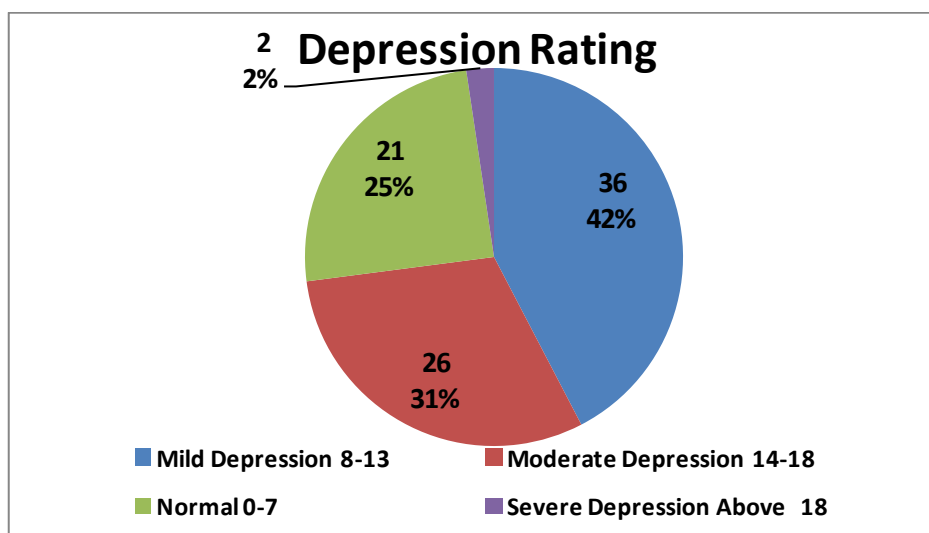


Fig 8: Severity of Depression

In our sample size of 85 patients, 42 % of patients showed mild depression, 31% of patients showed moderate depression, 25% of patients showed normal values and 2% of patients showed severe depression. According to our study most of the patients with epilepsy show mild to moderate depressive symptoms, this may be due to the disease itself or as an adverse effect of the drugs used in treatment of the disease.

Comparison between the depression rating of male and female patients: The following results were found in the comparison

Table 5: Severity of Depression in male patients

Depression rating	Mild depression	Moderate depression	Normal	Severe depression
Male population	20	11	12	1
Female population	16	15	9	1

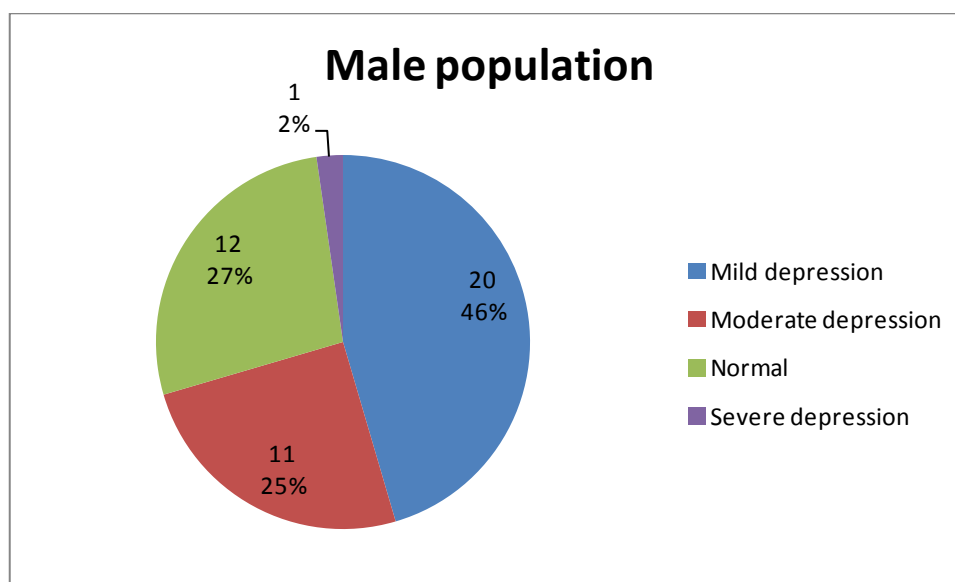


Fig 9: Severity of Depression in male patients

In the above comparison between the depression rating of male and female patients 44 male patients were included out of which 46% of patients (20) showed mild depression, 25% of patients (11) showed moderate depression, 27% of patients (12) showed normal values and 2% of patients (1) showed severe depression.

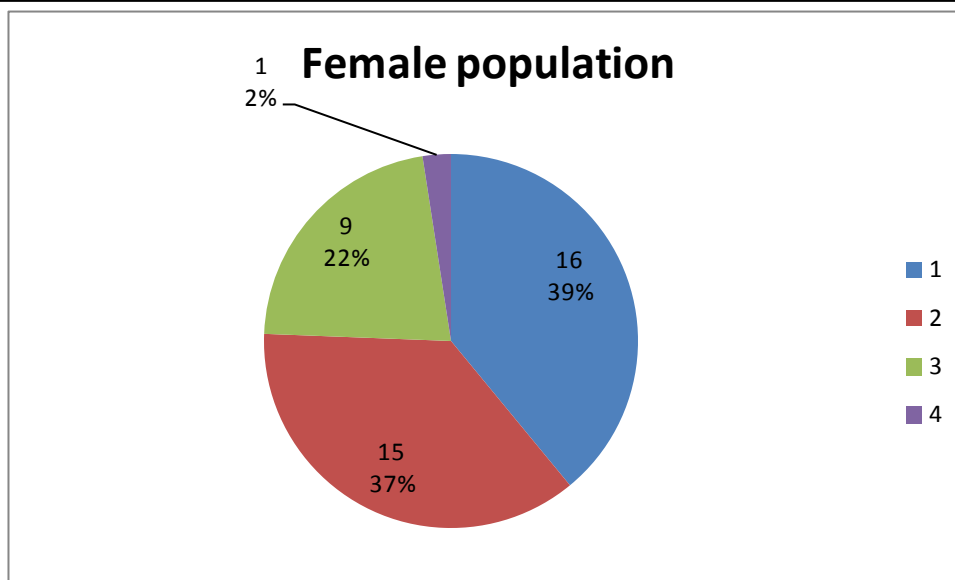


Fig 10: Severity of Depression in female patients

In the above comparison between the depression rating of male and female patients 41 female patients were included out of which 39% of patients(16) showed mild depression, 37% of patients (15) showed moderate depression, 22% of patients(9) showed normal values and 2% of patients(1) showed severe depression. The comparison between the depression ratings of male and female patients shows that female patients have more depressive symptoms when compared to male patients.

Comparison between depression ratings of patients with different age groups: The following results were found in comparison

Table 6: Severity of Depression in different age groups

Depression rating	Mild depression	Moderate depression	Normal	Severe depression
Age group 18-30	16	8	6	0
Age group 31-40	10	9	8	0
Age group 41-50	6	3	4	1
Age group 51-60	4	6	3	1

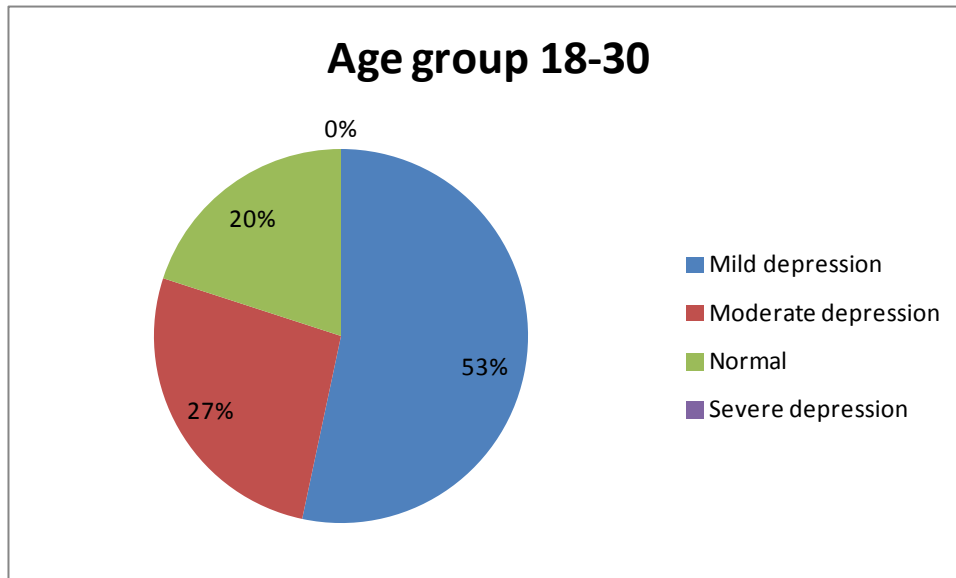


Fig 11: Severity of Depression in age group 18-30

In the age group of 18-30, 53% of patients showed mild depression, 27% of patients showed moderate depression, 20% of patients showed normal values and none of the patients showed severe depression.

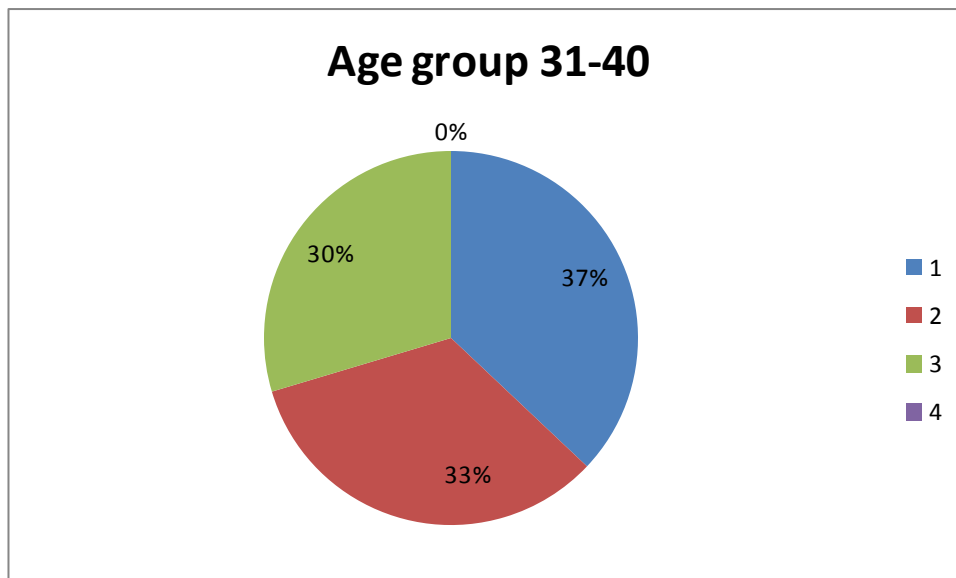


Fig 12: Severity of Depression in age group 31-40

In the age group of 31-40, 37% of patients showed mild depression, 33% of patients showed moderate depression, 30% of patients showed normal values and none of the patients showed severe depression.

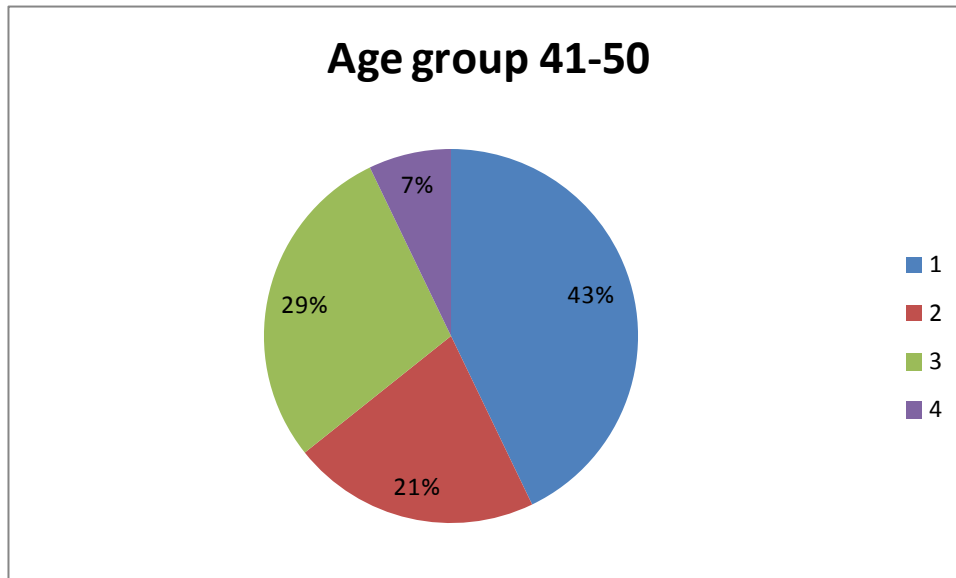


Fig 13: Severity of Depression in age group 41-50

In the age group of 41-50, 43% of patients showed mild depression, 21% of patients showed moderate depression, 29% of patients showed normal values and 7% of the patients showed severe depression.

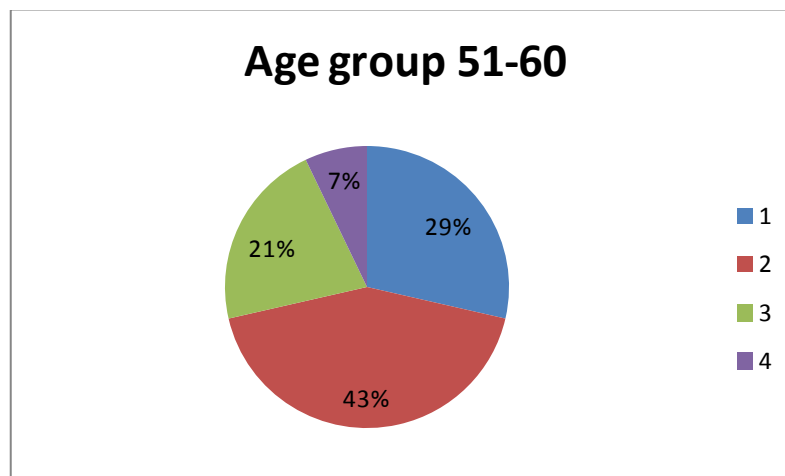


Fig 14: Severity of Depression in age group 51-60

In the age group of 51-60, 29% of patients showed mild depression, 43% of patients showed moderate depression, 21% of patients showed normal values and 7% of the patients showed severe depression. In the above comparison the age group of 18-30 showed the least depression rating.

Anxiety:

During our study in the assessment of anxiety the following results were found:

Table 7: Severity of Anxiety

Data	Mild Anxiety	Moderate Anxiety	Normal	Severe Anxiety
Normal values	Score 14-17	Score 18-23	score 0-13	Above 23
Anxiety Rating	25	8	51	1

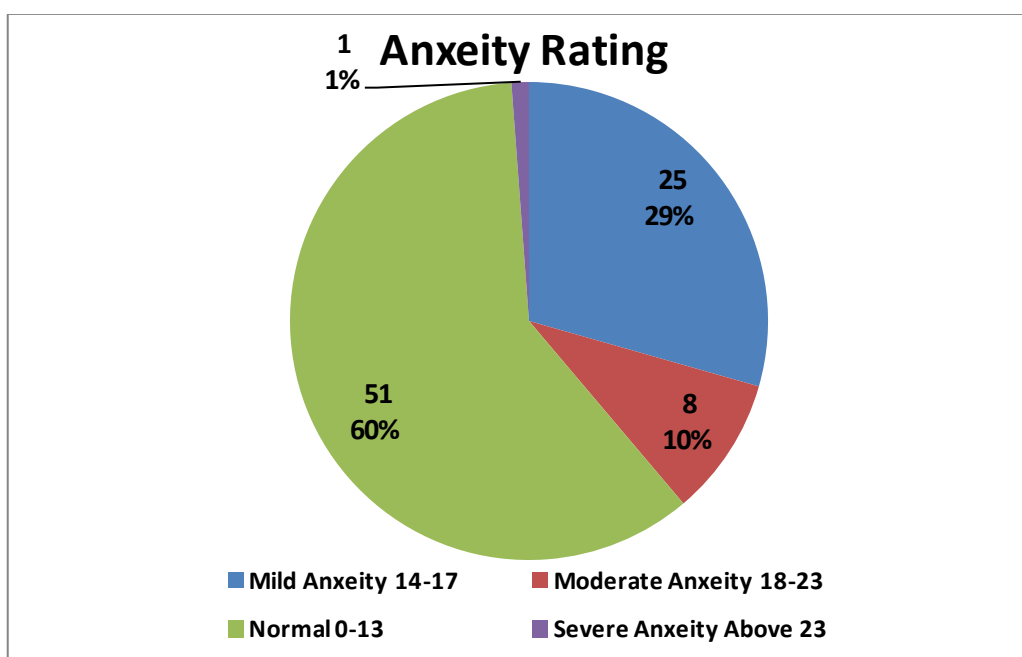


Fig 15: Severity of Anxiety

In our sample size of 85 patients, 25 % of patients showed mild anxiety, 8% of patients showed moderate anxiety, 60% of patients showed normal values and 1% of patients showed severe anxiety. According to our study most of the patients with epilepsy show normal values for anxiety because the drugs used for the treatment of epilepsy also to some extent control the anxiety in patients.

Comparison between the anxiety rating of male and female patients: The following results were found in the comparison

Table 8: Severity of Anxiety in male and female patients

Anxiety rating	Mild Anxiety	Moderate Anxiety	Normal	Severe Anxiety
Male population	12	4	27	1
Female population	13	4	24	0

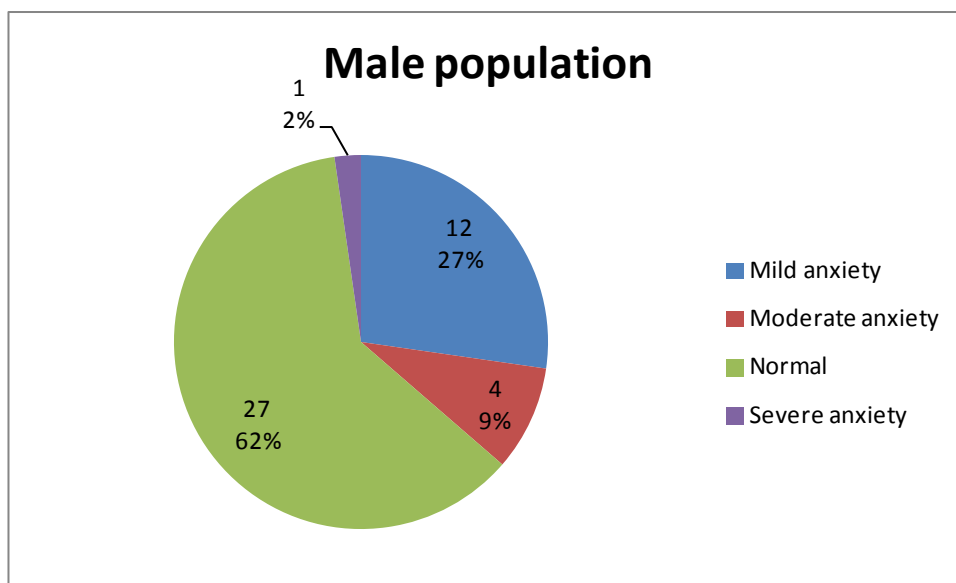


Fig 16: Severity of Anxiety in male patients

In the above comparison between the anxiety rating of male and female patients 44 male patients were included out of which 27% of patients(12) showed mild depression, 9% of patients (4) showed moderate depression, 62% of patients(27) showed normal values and 2% of patients(1) showed severe depression.

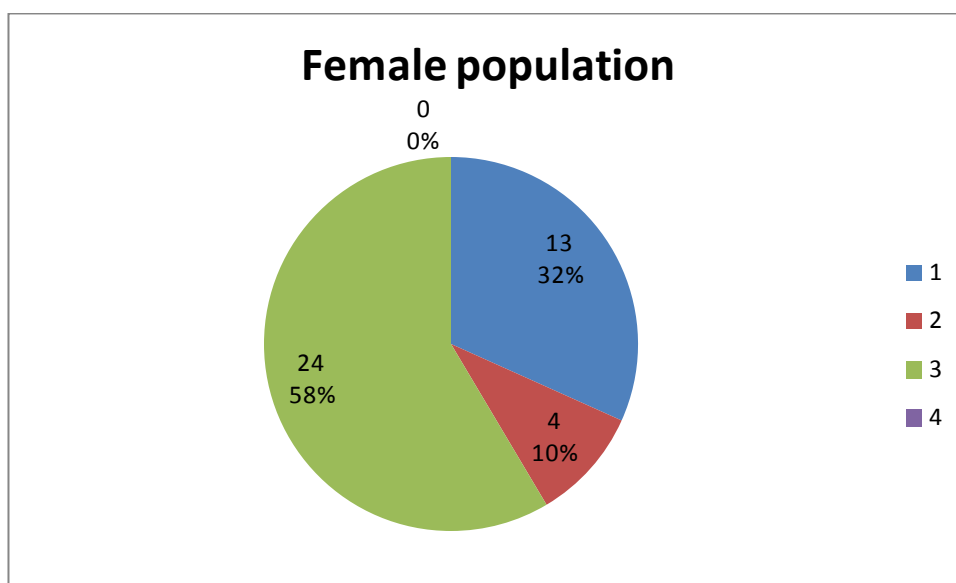


Fig 17: Severity of Anxiety in female patients

In the above comparison between the anxiety rating of male and female patients 41 female patients were included out of which 32% of patients(13) showed mild depression, 10% of patients (4) showed moderate depression, 58% of patients(24) showed normal values and none of patients showed severe depression.

The comparison between the anxiety ratings of male and female patients shows that female patients have more anxiety when compared to male patients.

Comparison between anxiety ratings of patients with different age groups: The following results were found in comparison

Table 9: Severity of Anxiety in different age groups

Anxiety rating	Mild Anxiety	Moderate Anxiety	Normal	Severe Anxiety
Age group 18-30	9	2	16	0
Age group 31-40	7	1	12	0
Age group 41-50	3	2	11	1
Age group 51-60	6	3	12	0

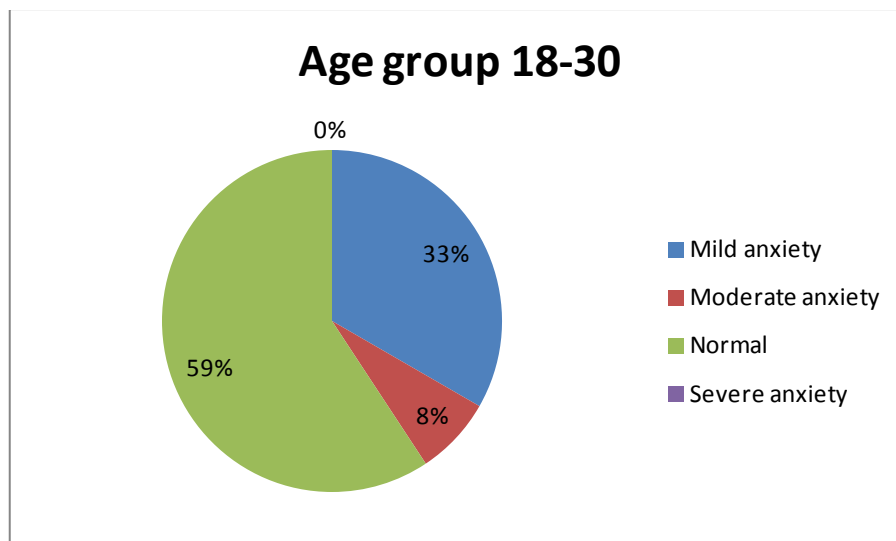


Fig 18: Severity of Anxiety in age group 18-30

In the age group of 18-30, 33% of patients showed mild anxiety, 8% of patients showed moderate anxiety, 59% of patients showed normal values and none of the patients showed severe anxiety.

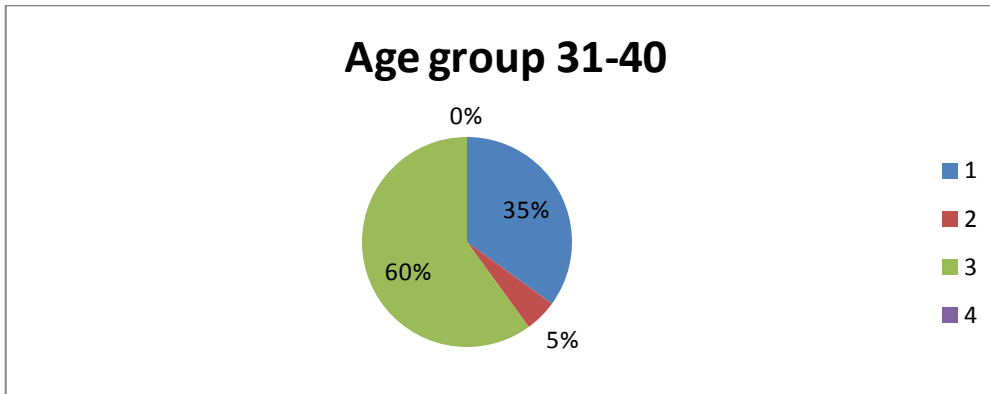


Fig 19: Severity of Anxiety in age group 31-40

In the age group of 31-40, 35% of patients showed mild anxiety, 5% of patients showed moderate anxiety, 60% of patients showed normal values and none of the patients showed severe anxiety.

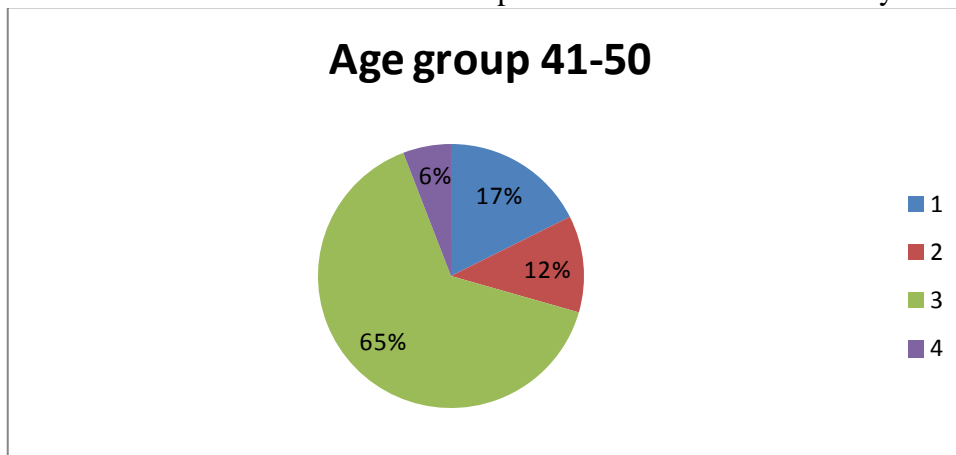


Fig 20: Severity of Anxiety in age group 41-50

In the age group of 41-50, 17% of patients showed mild anxiety, 12% of patients showed moderate anxiety, 65% of patients showed normal values and 6% of the patients showed severe anxiety.

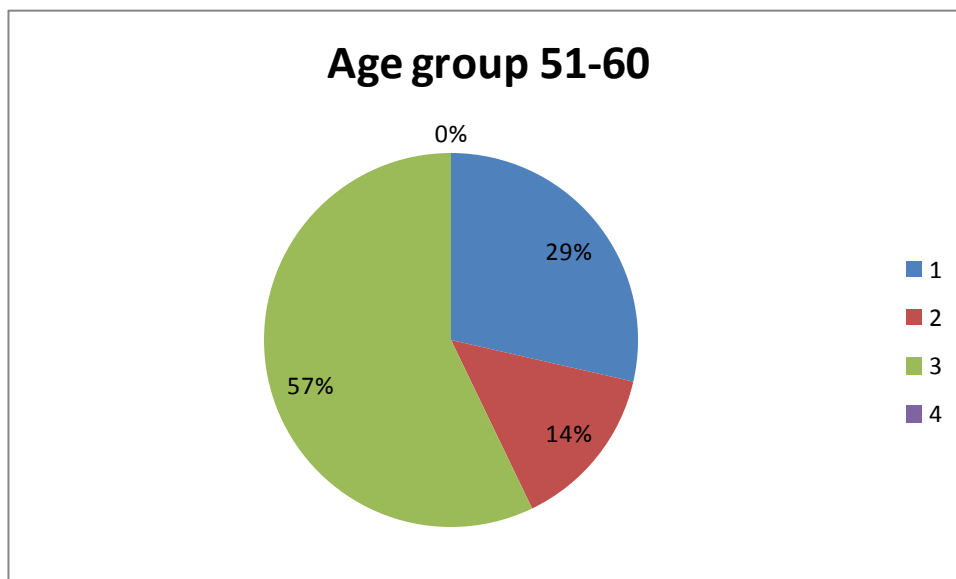


Fig 21: Severity of Anxiety in age group 51-60

In the age group of 51-60, 29% of patients showed mild anxiety, 14% of patients showed moderate anxiety, 57% of patients showed normal values and none of the patients showed severe anxiety.

In the above comparison between the depression ratings of different age groups it is found that all the age groups mostly have normal values for anxiety.

Suicidal Tendencies:

Assessment of suicidal tendency:

In our study which included a sample size of 85 patients none of the patients showed suicidal ideation or suicidal tendency. This is because the patients have already been diagnosed with the disease and are undergoing treatment with the drugs. The drugs used in the treatment of epilepsy also help in decreasing the co-morbidities associated with the disease.

DISCUSSION:

Epilepsy is a chronic and serious neurological disorder with multifaceted uncertainties and stigmatization which have significant negative role in the QOL of those afflicted by the disorder. Nearly 5.5 million people suffered from epilepsy as per an estimate in 2001. Of these, 4.1 million people belonged to the rural sections. [Sridhar R, 1999]. The present study evaluated the occurrence and severity of the comorbidities in seizure patients and its effect on quality of life in them.

SUMMARY

The purpose of this study is to describe the Quality of Life in seizure patients and its co morbidities because epilepsy has a range of co morbid conditions that can adversely affect them. In this study the co morbid conditions taken into considerations are depression, anxiety and suicidal tendencies. This is an observational study which utilized the information from the patient that was collected from standard questionnaires in order to investigate the severities of co-morbidities and their QoL. A sample of 86 seizure patients from an accessible population out-patient, Neurology department at KIMS hospital was collected. Their age group was between 18 to 65 years. The procedure of collection of the answers from questionnaires was patients who suited the criteria of the study were selected and they were firstly given the informed consent and later after their approval they were asked questions from standard questionnaires. The standard questionnaires are a set of questions that are given by reputed institutions and are validated. On an average in our study 59% of patients showed good quality of life and 42% patients showed mild depression. Mild anxiety was seen in 26% of the patients and there were no one who had a suicidal thought. Thus as this study is not a comparative study the statistical analysis was carried out in excel sheet. And as a result the people with seizures tend to be more depressive than any other co morbidity. All the graphs were obtained in pie charts. And the percentages were calculated. Out of the sample size of 85 patients 36 patients were found to be depressive. Thus the assessment of all the parameters was done successfully.

CONCLUSIONS

Co morbidities in epilepsy are very common and the early detection of such disorders should be done and treated. If unrecognized, it would significantly affect it adversely. The following conclusions were drawn from the analysis of the data. The assessment was found to be effective as the patients were discovered with the related co morbidities of epilepsy and reported.

Future prospects:

The future prospective for this study i.e. assessment of quality of life, depression, anxiety and suicidal tendencies in patients with seizures might be a very broad and interesting thing as one can enroll a huge number of patients and in this study we have enrolled 85. This study can be further carried out using different other scales such as QOLIE-89 for adolescents and many such. They also can conduct the study taking only a particular type of seizure like generalized or partial or refractory or temporal lobe epilepsy.

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