

A Study of Health Related Quality of Life in Patients with Epilepsy



Medical Science

KEYWORDS : anxiety; epilepsy; seizure frequency; health related quality of life.

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ABSTRACT

object- The aim of this study was to study anxiety status in patients with epilepsy and to evaluate the relationship of anxiety and seizure frequency with health related quality of life (HRQOL) in people with epilepsy.

Methodology -45 epileptic patients and 45 healthy subjects were interviewed at the outpatient clinic for epilepsy at Hamidia Hospital Bhopal to assess the anxiety status and health related quality of life.

results - In the present study 56% of epileptic patients were having anxiety as compared to 9% in control group. The mean anxiety score were (31.08±5.2) and (39.8±11.1) in control group and epileptic patients. The difference of mean anxiety score between the two groups was statistically highly significant p value ($p < 0.001$). On comparing the mean anxiety score of the patients in the frequency group- very frequent and frequent a highly statistically significant difference was observed. $t=2.9$, ($p < 0.001$). On assessing the health related quality of life in epileptic patients reported epilepsy as disease 64%, shame 56% faced difficulties in work 53%, perceived epilepsy as stigma 62%. Adaptive strategies employed were seeking for treatment 91%, not talking about disease or non acceptance in 58% and looking for physical as well as spiritual support. Patients perceived seizures not under their control in 69% of cases.

conclusion- There was a significant association between anxiety status and seizure frequency with health related quality of life of the epileptic patients.

INTRODUCTION

Epilepsy is a common neurological disorder with potential to impact significantly on the broad range of aspects of Health related Quality of life (HRQOL). People with epilepsy not only suffer from the disease itself but also from many psychosocial issues too, which may adversely affect their quality of life. There are numerous studies reporting that the severity of anxiety and depression in epileptic patients is higher than normal controls [4,14,15]. The relative contribution of anxiety symptoms were associated independently with reduced HRQOL in people with epilepsy [5,9]. Patient suffering from chronic illness build a cognitive representation of the disease and employs coping strategies to counter the disease and various other psycho-social aspects associated with the disease [6,12]. Significant number of patents with epilepsy felt stigmatized by their epilepsy and reported that their health status was reduced when compared to people without epilepsy particularly for physical and social functioning and energy and vitality [2]. In people with epilepsy the disease is often associated with various mental problems such as feeling of personal devaluation, shame, fear, low self esteem, insecurity, of being different and of being sick [6]. The objective of this study was to compare the anxiety in people with epilepsy with controls and to assess various factors influencing health related quality of life of these patients.

METHODOLOGY -

This study was conducted in 45 epilepsy patients who were attending the epilepsy clinic of the Department of Medicine Gandhi Medical College Bhopal. The control group was constituted by 45 normal healthy individuals who used to accompany the patient to the hospital. Both the patient and controls were between 13-46 yrs of age and did not have any evident metabolic and psychiatric disease. Written informed consent was obtained from the participants. Cases of partial seizures with secondary generalization and GTCS (Generalized Tonic Clonic Seizures) diagnosed clinically in accordance to the guidelines of ILAE [18] and confirmed electro-encephalographically were included in the study. EEG was recorded on - EEG Machine; Medlec profile model machine; 10-20 system of electrode placement; Chart speed of 30mm/sec; Calibration of 50 μ V/7mm. Patients suffering from any neurological disorder other than epilepsy, previous history of head injury or suffering from any other chronic illness, which might predispose them to anxiety were excluded from the study. The frequency of seizure was categorized as very frequent; seizures occurring at intervals shorter than 10 days, frequent seizures; seizure occurring in between 10-30 days and occasional seizures; seizures occurring in between 31 days- 1 year. Anxiety status of the participants was assessed by Indian version of Taylor's Manifest Anxiety Scale (Developed by D.Sinha 1961) [16]. For assessing the quality of life a ques-

tionnaire was introduced containing the 25 questions aimed at identifying the meaning given to the disease, self concept, difficulties faced associated feelings with seizure, personal strategies perception of support and other problems. Three closed questions were aimed at identifying epilepsy as a stressor, perception of stigma and perception of seizure control. This questionnaire was used after semantic validation, in such a way that it was easily comprehensible to the patients of the outpatient clinic for epilepsy at this hospital.

RESULTS

anxiety status of the participants -

In the present study 25 patients (56%) of epileptic patients were having anxiety as compared 8 participants (9%) in control group. In control group the mean anxiety score was (31.08±5.2) and in epileptic patient mean anxiety score was (39.8±11.1). The difference of mean anxiety score between the epileptic and control group was statistically highly significant p value ($p < 0.001$).

Table 1

Comparison of anxiety scores in study population.

Group	Normal (20-35)	High (36-50)	Very high (>50)	Mean Anxiety Score
Controls (n=45)	30.08 ± 4.2 (37)	38.19 ± 5.2 (8)	-	31.08 ± 6.7 (45)
Epileptics (n=45)	31.04 ± 3.1 (20)	39.12 ± 5.6 (19)	61.08 ± 6.7 (6)	39.8 ± 11.05 (45)

t=4.04, p<0.001

frequency of seizures

The epileptic patients were classified into three categories Very frequent, frequent and occasional. On comparing the mean anxiety score of the patients in the frequency group; very frequent and frequent, a highly statistically significant difference was observed ($p < 0.001$).

Table no 2

Comparison of anxiety scores of epileptic patients classified on the basis of seizure frequency

Group	Seizure Frequency	No. of Patients	%	Anxiety Score Mean ± SD
I	Very frequent	23		35.81 ± 9.6
II	frequent	22		45 ± 10.7

t=2.9, p < 0.001.

epilepsy vs health related quality of life**Table 3****Epilepsy Vs Health related Quality of life****Representation of epilepsy as disease, self concept, adaptive strategies, perception of seizure control.**

S.N.	Epilepsy as	Patients	
		N	%
1	Disease	29	64%
	Mental problem	3	7%
	Family burden	26	53%
	Losses and disvalue	18	41%
2	Self-concept and feelings	13	28%
	Abnormality	14	31%
	Being different	12	27%
	Shame, worry, insecurity, and low self-esteem	25	56%
3	Epilepsy as stressor	27	60%
4	Difficulties	24	53%
	Work	7	15%
	School	12	27%
	Relationship	22	49%
	Leisure	22	49%
	Sexual	16	36%
5	Marriage	16	36%
5	Perception of stigma	28	62%
6	Adaptive strategies	19	40%
	Looking for social support	22	49%
	Social Withdrawal	41	91%
	Looking for medical treatment	26	58%
	Non acceptance, not talking about disease	6	14%
	Praying or looking for spiritual support	4	9%
	Looking for psychological support	16	36%
	Other problems not associated with epilepsy	5	11%
7	Financial	-	-
	Alcohol history in family	-	-
8	Prostitution	-	-
	Perception of Seizure Control	14	31%
	Controlled	31	69%
	Not controlled		

STATICAL ANALYSIS**The statistical analysis was done using Epi info 7.****DISCUSSION AND CONCLUSION****anxiety status-**

Anxiety and depression are the most frequently encountered psychiatric disorders in epileptic children and adults [4,19,20]. In the present study the anxiety scores were significantly higher in epileptic patients than in control group. On comparing the mean anxiety scores of epileptic patients and controls revealed statically significant difference ($p < 0.001$).

frequency of seizures-

In epileptic patients the high seizure frequency is an independent determinant of anxiety and depression in these patients. Frequency of seizures is reported to be associated with anxiety when the seizures were less controlled. Goldstein and Harden

observed the opposite relationship: i.e. lower anxiety and high seizure frequency. There may be a mechanism of adaptation to stressful situations according to Goldstein and Harden, but in individuals who have learned to adapt through their lifetime[8]. Leidy NK et al found that the quality of life of seizure free adults was comparable with the general population but as the seizure frequency increases patients report impaired quality of life[12]. The heightened anxiety status of epileptic patients may contribute to the adverse impact on quality of life in epileptic patients. Higher the frequency of seizure, the patient perceives lesser control over the seizures. This perception of lesser control over seizures adversely affects the quality of life of the epileptic patients. In the present study 51% of the patients had seizure frequency as very frequent. 49% had seizure frequency as frequent. The mean anxiety scores of very frequent and frequent groups were compared, $p < 0.001$, which signifies significant difference between the two groups. In the present study it was found that the anxiety scores of patients with epilepsy were consistently higher than in the control group and also patients having very frequent seizures were having higher anxiety scores than patient having frequent seizures.

health related quality of life -

Desouza EAP et al reported that out of 60 epileptic patients 46.6% of the patients reported epilepsy as stressful. They reported difficulties at work 53.4%, 45% at school, relationship 26.6%, sexual and marital problems in 50% of epileptic patients[06]. Birbeck GL et al concluded that in patients with epilepsy have difficulties in interpersonal, familial, social relationships, difficulties in schooling all having a negative impact on the quality of life of these patients[2]. In the present study 62% found epilepsy as stressor. It was also found that 49% of these patients had difficulties at work, 16% school, 20% had sexual problems and 15% marital problem.

Attarian H et al studied the relationship between depression and intractability of seizures and he opined that psychological disorders were not directly related to severity of seizures but to the strategies through which epileptics define their personal and social reality. After evaluation of situation as stressful, there is tendency to choose certain adaptive strategies to deal with seizure when they happen. Non-acceptance and difficulty in speaking about disease decrease a person's chance to adopt successfully predisposing to occurrence of affective disorders[1].

Epilepsy being a chronic disorder, patients with epilepsy over period of time tends to develop certain adaptive strategies such social withdrawal, looking for social and spiritual support, even not talking about disease to other people these all eventually leads to the patient's withdrawal from society.

Perception of seizure control is a subjective feeling but as the frequency of seizure increases in epileptic patients lesser is the perception of seizure control. Meador et al has stated that the perception patients have about disease activity affects their quality of life more than the condition itself[13].

When people with epilepsy perceives that seizures are not under his control, then health related quality of life is adversely affected. Thus people with epilepsy shall be routinely assessed for presence of anxiety as well as evaluation of health related quality of life.

REFERENCE

- [1]. Attarian H, Vahle V, Carter J. et al. Relation between depression intractability of seizures. *Epilepsy Behav.* 2003;4:298-301. | [2]. Baker GA, Jacoby A, Buck D, Stalgis C, Monnet D. Quality of life of people with epilepsy: European study. *Epilepsia.* 1997; 38: 353-62. | [3]. Birbeck GL, Hays RD, Xinping C, Vickrey BG. Seizure reduction and quality of life improvements in people with epilepsy. *Epilepsia.* 2002; 43:535-8. | [4]. Beyenburg S, Mitchell AJ, Schmidt D, Elger CE, Reuber M. Anxiety in patients with epilepsy: systematic review and suggestions for clinical management. : *Epilepsy Behav.* 2005 ;Sep;7(2):161-71 | [5]. Choi-Kwon S, Chung C, Kim H, et al. Factors affecting the quality of life in patients with epilepsy in Seoul, South Korea. *Acta Neurol Scand* 2003;108:428-34 | [6]. EAD Desouza P.C.B. Salgado, A psychosocial review of anxiety and depression in epilepsy, *Epilepsy and behaviours.* 2006;233-234. | [7]. Elisabete Abib Pedroso de souza, Priscila Camile Barioni Salgado. A Psychological view anxiety and depression in epilepsy : *Epilepsy and Behavior.* 8; 2006; 232-238 | [8]. Goldstein MA, Harden CL. Continuing exploration of the neuropsychiatry of seizures: a review of anxiety and epilepsy. *Epilepsy Behav.* 2000;1:228-34 | [9]. Johnson EK, Jones JE, Seidenberg M, et al. The relative impact of anxiety, depression and clinical seizure features on epilepsy. *Epilepsia.* 2005;45:544-50. | [10]. Kemp S, Morley S, Anderson E. Coping with epilepsy ; do illness representation play a role? *Br J Clin Psych* 1999;38:43-58. | [11]. Liedy NK, Elixhauser A, Vickrey BG, Means E, William MK. Seizure frequency and health-related quality of life in adults with epilepsy. *Epilepsy Neurology.* 1999;53:162-6. | [12]. Leventhal H, Nerenz DR, Karol P. The assessment of illness cognition. In: editor. *Measurement strategies in health psychology.* New York: Wiley; 1985. p. 517-54. | [13]. Meador KJ. Research use of the new quality of life of epilepsy inventory. *Epilepsia.* 1993;34(Suppl. 4):S34-8. | [14]. Ott D, Caplan R, Guthrie D, et al. Measures of Psychopathology in children with complex partial seizures and primary generalised epilepsy with absence. *J Am Acad Child Adolesc Psychiatry.* 2001;40:907-914 | [15]. Oguz A, Kurul S, Dirik E. Relationship of epilepsy-related factors to anxiety and depression scores in epileptic children. *J Child Neurology.* 2002;17:37-40. | [16]. Sinha's D. Development of anxiety scale, *Manas* 1961; 1-10. | [17]. Upton D, Thompson PJ. Effectiveness of coping strategies employed by people with chronic epilepsy. *J Epilepsy* 1992;5:119-2 | [18]. Commission on Classification and Terminology of the International League Against Epilepsy. Proposal for revised clinical and electroencephalographic classification of epileptic seizure. *Epilepsia* 1981;22:289 | [19]. Blumer D, Montouris G, Hermann B. Psychiatric morbidity in seizure patients on a neurodiagnostic monitoring unit. *J Neuropsychiatry Clin Neuroscience* (1995)7:445-456. | [20]. Dunn DW, Austin JK, Huster GA. Symptoms of depression in adolescent with epilepsy. *J Am Acad Child Adolesc Psychiatry.* 1999; 38:1132-38. |