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RESEARCH ARTICLE

STUDY OF QUALITY OF LIFE IN ELDERLY PATIENTS ON ANTIHYPERTENSIVE DRUG THERAPY

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ABSTRACT

The use of drugs to increase human happiness and to improve the quality of life physically, mentally and socioeconomically is a serious matter of concern. Chronic disabling conditions become common in old age and affect the quality of life. Quality of life (QOL) is an important measure of health care, which measures the gap between expectations and achievements. Effect of Drug use on quality of life in elderly Indian population with hypertension was studied using Mc Master Health Index. The study population was divided into test group (hypertensive patients on regular treatment) and control group (Not on any treatment or on treatment for less than 3 months). All three parameters of QOL namely physical, emotional and social were studied using Mc Master Health Index questionnaire. The results were statistically compared using ANOVA and chi square. Our results point toward better overall QOL in patients on regular treatment.

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INTRODUCTION

The later years of people's lives bring into sharper focus essential features of quality of life (QOL) and their interrelation with quality of health care. Factors which in earlier years of life seem to be optional, become critical in old age for maintenance of person's integrity independence and autonomy. Older people have immense and individual differences in physical, mental health and socio-economic characteristics. Also chronic disabling conditions become common in old age and affect the quality of life. Quality of life has been defined as the gap between patient's expectation and achievements based on four principal dimensions – physical mobility, freedom from pain, distress capacity for self care and ability to engage in normal work and social interactions. (Bennett and Brown, 2008) QOL helps to asses the benefits and risk of medicine to society and provides a valuable feedback to physician thus promoting safe and efficacious use of drugs in the elderly.

Health care changes and improvement in lifestyle has led to considerable increase in segment of population above 60 years of age. Nearly half of the total drug consumed is by population above 60 years of age. In the present study QOL life in patient's above the age of 60 years on treatment for hypertension was assessed.

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MATERIALS AND METHODS

A relatively homogenous population of the society of the age of 60 years literate educated up to 10th standard and above suffering from chronic disease that is hypertension, was considered for study. The patient's quality of life assessment was done with help of a standardized health index questionnaires i.e. Mc Master Health Index Questionnaires (MHIQ) in 73 patients. These patients were divided into 2 groups, Test group and control group.

Test group – This group consists of patients suffering from above mentioned diseases and were stable on regular treatment for period of more than one year.

Control group – This group consists of patients suffering from above mentioned chronic disease and were on regular treatment for period less than three months or not on any treatment. All uncooperative, aggressive, illiterate and acutely ill patients or requiring indoor admission were excluded. These patients were approached between 10 to 11:30 AM when they were rested, alert and relaxed. The QOL of patient was assessed using MHIQ where in three dimensions of health namely physical, social and emotional functions were assessed. Physical function items – They cover physical activities, mobility, self care activities, disability, communication and global physical function. These functions evaluate the patient's functional level on day MHIQ was administered. Emotional function items are

concerned with feeling of self esteem, personal relationship, thought about future, intellectual functioning and global emotional function. These items are phrased in present tense. Social function items are conserved with social activities and community affair.

Scoring of MHIQ

Response to the questions in each item was recorded. Each desirable response was given score of 2 with maximum score of 40 in physical function item and minimal score of 20. Patients score could be 54 at the best and worst at the score of 18. Social function item score obtained was within the range of 61 to 144. The QOL score of test group and control group were analyzed with the help of chi square test and analysis of variance (ANOVA).

RESULTS

73 elderly educated patients suffering from chronic diseases were included. Control group had 20 males and 18 females while test group had 16 females and 19 males.

QOL in Hypertensive patients – When comparison was made in physical function score only 3% patient in test group scored poor physical function as compared to 21% patient in control group. In contrast 46% patient in test group scored good physical function score where as only 11% patient in control group scored good physical function. The difference was statistically significant.

Emotional functions were also in favor of test group where 37% and 54% of test group patients were in good and very good score range. (Table 1)

Table 1. Distribution of patients with Hypertension in test and control group according to their "life Score"

QOL parameters	Control group		Test group		'p' values
	Number	Percentage	Number	Percentage	*Significant
Physical function score (20-40)					
Poor 20-35	8	21%	1	3%	0.044
Fair 26-30	16	42%	7	21%	0.042
Good 31-36	10	11%	11	31%	0.0629
Very Good >36	4	11%	16	41%	0.001
Emotional Function score(18-54)					
Poor 18-27	0	0%	0	0%	-
Fair 28-37	16	42%	3	9%	0.001
Good 38-47	21	55%	13	37%	0.121
Very good >47	1	3%	19	54%	0.001.
Social Function Score(23-50)					
Poor 23-29	4	11%	0	0%	0.144
Fair 30-36	21	54%	10	29%	0.021
Good 37-43	12	32%	12	34%	0.805
Very Good >44	1	3%	13	37%	0.001
Total Quality of Life (QOL) 61-144					
Poor 61-81	0	0%	0	0%	-
Fair 82-102	16	42%	5	14%	0.009
Good 103-123	21	55%	14	40%	0.192
Very Good >123	1	3%	16	45%	0.000

Table 2. Duration of Hypertension and OPD visits made by patients in control and test groups

Hypertension Parameter	Control Group N=38	Test Group N=35
Duration of Disease		
Less than 1 year	12	-
1-5 years	17	21
6-10 years	7	10
>10 years	2	04
Visits To OP dept.		
Quarterly	10	15
Half Yearly	14	13
Annually	14	7

In social functional assessment both test and control group scored evenly. When total QOL score was compared it was observed that 85% patients in test group had good to very good QOL as compared to control group which had majority of patient in fair to good score range. Also 45% of patients in test group enjoy very good QOL as compared to 3% in control group.

DISCUSSION

The concept of quality of life (QOL) has been defined as the gap between patient's expectation and achievements based on four principal dimensions – physical mobility, freedom from pain, distress capacity for self care and ability to engage in normal work and social interactions. (Bennett and Brown, 2008) It is also known that physician who successfully control the blood pressure may be unaware of negative effect that antihypertensive can have on QOL. (Juchuck *et al*., 1982; Bulpitt, 1982; Bulpitt and Fletcher, 1990) Some people feel that use of antihy-pertensive medications more troublesome than that of symptomatic disease resulting in noncompliance and ineffective treatment. (VanHoof *et al*., 1990) These studies suggest that drug treatment has negative effect on QOL. In our study we found that patient in test group scored high score in QOL (123 ± 11) in test group as compared to 102 ± 11 in control group i.e better QOL. This finding is consistent to previous studies that patient with controlled blood pressure has better QOL (Wiklund *et al*., 1997; Grimm *et al*., 1997) where in Psycho-logical General well being Index and subjective symptom assessment profile (SSA -P) was used. In our study physical score was higher in test group similar to result of Grimm *et al*. (1997) but in contrast to our results Jachuck *et al*. (1982) had reported that energy was affected in 68% of patients on antihypertensive treatment. Also Blood pressure is associated with number of symptoms such as waking headache, blurred

vision, nocturia, sexual problems and cognitive impairment. (Bulpitt and Fletcher, 1990; Bansal, 1988; Shapiro *et al*., 1982) That means hypertension is not asymptomatic condition and its treatment and counseling given by physician improves QOL. As a result of education and counseling given by physician patient felt better and respond favorably regarding questions on emotional QOL.

Social function scores are also high as more physically active and emotionally secure patient will be active socially. Higher scores may be attributed to many factors like being assured that his blood pressure is under control also since patient in test

group were on regular treatment for minimum period of one year, so full benefit of therapy was experienced and patients had adapted to adverse events that occur with start of therapy as previous studies support the fact that it takes 3-6 months for benefit of therapy and adaptation to adverse effects. Lower score in control group may be due to feeling of anxiety and other symptoms associated with elevated blood pressure. (Bulpitt, 1982) The patient not on treatment in early stages of therapy was less adaptive for adverse events and was likely to feel worse resulting in lower QOL scores. Total QOL score in patients suffering from hypertension are signify-cantly higher than the control group. When compared parameter wise i.e. physical emotional and social parameters, all the parameters showed significantly higher scores in the treatment group. So the study concludes that the treatment has beneficial effect on quality of life in hypertensive patients.

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