Original Research Article

A study on psychological morbidity of cancer patients and chronic kidney disease patients

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ABSTRACT

Background: Cancer disease is a dangerous illness that causes about12% of deaths throughout the world. Increasing to 54% of all deaths by the year 2025. Recent international data show that there were 10 million new cases, 6 million deaths, and 22 million people living with cancer in 2000. In addition to physiological problems, the patient faces at large too many inherent problems by the family and society.

Methods: A Hospital-based cross-sectional study was carried out among the people aged 18 to 70 years from the selected study area. The sample size was determined based on a prior study of the mean score of these three psychological variables anxiety, depression, stress. data was collected by using hospital anxiety depression scale and presumptive stressful life event scale.

Results: In our study, The percentage of mean depression and stress level before 1 year were higher (11.49±2.76) (64.12±85.28) in CKD patients than cancer patients (10.86±2.51) (39.57±56.60), and the difference was found to be statistically significant (t=2.119, p=0.035) (Z=2.327, p=0.020) but the mean percentage of anxiety (7.43±3.21) and stress during past 1 year (317.46±87.95) were higher in cancer patients than CKD patients (5.63±2.82) (266.01±87.26).

Conclusions: Based on our findings we may conclude that cancer patients have inclined to various psychological problems particularly depression, anxiety, and stress as compared to CKD. The depression and stress level before 1 year in CKD patients were more than that of cancer patients but anxiety and stress level during past 1 year was found more in cancer patients than that of CKD patients. Cancer thoroughly breaks the patients psychologically as well as biologically.

Keywords: Cancer, Anxiety, Depression, Chronic Kidney disease

INTRODUCTION

Cancer is one of the major leading causes of mortality worldwide. It is distressing for both patients and their care takers.[1] Untreated psychological disorders with any other medical condition may worsen the individuals' quality of life.[2] Cancer often involves complex medical problems that can lead to organically induced mental disorders. Cancer affect the psychological well being of the patient which may be cause of damage of C.N.S like delirium; symptoms include in delirium are attention and memory deficits, disorientation, perceptual distortion, psychomotor disturbances and insomnia. People with cancer are inclined of psychological morbidities. Which affect their healthy living and psychological wellbeing, interpersonal relationship, self-care and treatment adaptation.[3-5] Untreated psychological disorders with any other medical condition may worsen the individuals' quality of life.[6] Studies in India very less regarding depression, anxiety and stress among cancer patients. Hence in this study we made an attempt to assess the

prevalence of depression, anxiety and stress and their severity among cancer patients. Depression is a co-morbid illness which affects 15 to 25% of cancer patients and it affect both gender equally; Individuals and families who face a diagnosis of cancer will experience varying levels of stress and emotional distress. Depression with cancer patients not only affects the patients but also produce major negative effect on their families.[7-9] Cancer is most stressful condition when a person is histologically confirmed diagnose that often a triggering factor for depression and anxiety.[10] As per the facts and figures of American cancer society, the global cancer burden indicates that cancer accounts for about 1 in every 7 deaths worldwide. In 2030, the globally burden is expected to increase 21.6 million new carcinoma cases.

METHODS

In this research study include histologically confirmed cases of different types of carcinoma patients and study samples were taken from radiotherapy and radiation medicine OPD, CKD patients were taken from nephrology OPD of S. S. hospital, institute of medical sciences, B. H. U., Varanasi, India. This cross-sectional study carried out among the people aged between 18 to 70 years from selected research area. Sample size fixed based on prior estimates (prior study) of mean score of these three variables anxiety, depression, stress and it comes out to be 160 in each group. Written consent was taken by the participants. All newly registered with confirm cases of carcinoma in OPD or admitted patients in the wards for CKD. Patients with gross psychotic abnormality were excluded, severe ill. Patients who were not able to complete interview technique were excluded. Carcinoma patients with other chronic disease were excluded and validated and statistically tested scales were used i.e. general health questionnaire (GHQ-12); in this scale 12 items structured questionnaire were used to collect information regarding psychological morbidity. This scale was developed by Gold berg (1976) and translated in to Hindi by Shiv et al. Reliability for the scale was found to be 0.78, hospital anxiety depression scale (HADS).[11,12]

This scale was developed by Zigmond and designed for use in patients with co-morbid illness. It consists of 14 items, seven each regarding depression and anxiety this gave a specificity of 0.79 and sensitivity of 0.83.[13] Presumptive stress full life events scale (PSLES). This scale is stress assessment scale developed by Holmes and Rahe. It consists, 51 items stressful life event. The reliability for the scale was found to be 0.73. Gurmeet Singh designed this scale for Indian population.[14] Data processing, statistical analysis was done using SPSS 16.0 program. Descriptive statistics were calculated for continuous variables and frequencies and percentages were calculated to summarize qualitative data. Statistical parametric (t-test) was applied for compare the psychological morbidity among cancer and CKD patients.

RESULTS

Our record analysis gave us 320 subjects who were eligible to be included in our study. Table 1 reveals that 65% of subjects were male, 91.2% subjects were Hindu with around 96% were married. Majority i.e. (74.4%) respondents belongs to rural area and 68.8% are of nuclear family. Living status of the patients who are living in family area 95.6%. Non-vegetarian are in majority (70.6%). Most of the respondents i.e. 30% were having occupation as House wife. A very small percentage i.e. 8% are having higher education i.e. graduate and above. (Table 2) reveals that the mean depression score in CKD patients is more than that of Cancer patients and the difference was found to be statistically significant (t=2.119, p=0.035). Where as the mean anxiety score in Cancer patients is more than that of CKD patients and difference was found to be highly statistically significant (t=5.314 and p=0.001) showing that anxiety is more in cancer patients. Similarly mean score during past 1 year stress for cancer patients is again more than that of CKD patients. The difference in mean score was found to be statistically significant that is (t=5.253 p=0.001). again the mean score before1year stress more in CKD patients than that of cancer patients. The difference in mean score was found to be statistically significant that is (Z=2.327, p=0.020).

Table1: Socio-demographic variables of the study subjects (n=320).

Socio-demographic variables		Cancer N=160	%	CKD N=160	%
Gender	Male	104	65.0	109	68.1
	Female	56	35.0	51	31.9
Religion	Hindu	146	91.2	152	95.0
	Muslim	14	8.8	8	5.0
Marital status	Married	153	95.6	145	90.6
	Unmarried	7	4.4	15	9.4
Residence	Rural	119	74.4	117	73.1
	Urban	41	25.6	43	26.9
Types of family	Nuclear	110	68.8	77	48.1
	Joint	50	31.2	83	51.9

Continued.

Socio-demographic variables		Cancer N=160	%	CKD N=160	%
Living status of patients	Alone	4	2.5	1	0.6
	With partner	3	1.9	0	0
	With family	153	95.6	159	99.4
Dietary habits	Vegetarian	47	29.4	43	26.9
	Non vegetarian	113	70.6	117	73.1
Occupation	House wife	48	30	47	29.3
	Farmer	37	23.1	30	18.8
	Labour	27	16.9	13	8.1
	Service	25	15.6	48	30.0
	Business	23	14.4	22	13.8
Education	Illiterate	45	28.1	19	11.8
	Primary	62	38.8	59	36.9
	Above primary & up to inter	40	25.0	54	33.8
	Graduate and above	13	8.1	28	17.5

Table 2: Shows the mean, standard deviation of psychological morbidities and t-test among the study subjects.

Psychological morbidities	Groups		t value	P value
	Cancer Mean±SD (N=160)	**CKD** Mean±SD (N=160)		
Depression	10.86±2.51	11.49±2.76	2.119	0.035
Anxiety	7.43±3.21	5.63± 2.82	5.314	0.001
PSLES score during past 1 year stress	317.46±87.95	266.01±87.26	5.253	0.001
PSLES score before 1 year stress	39.57±56.60	64.12±85.28	Z=2.327 (Mann Whitney test)	0.020

DISCUSSION

The present study revealed that psychological morbidity reveals that 90% patients in cancer groups were having psychological morbidities and 68.8% in CKD groups respectively. Patients in which psychological morbidity was present noted to be highly statistically significant in both study groups. Thapa et al reported that 60% cases having psychiatric morbidity. Other related study reported psychiatric morbidity.[8] Finding of the present study indicate that those who were having depression status normal was found to be almost similar in both the groups and those who were abnormal depression status was found more than 50% in both the study groups (cancer 52.5% and CKD 66.9%) and difference was found to be significant. Nanjaiah et al reported that the prevalence of one mental disorder was 90%, cases with anxiety (45.8%), depression (54%) and (90%) had psychiatric morbidity. Patient suffering from psychiatric morbidity less than 3 month had anxiety, 3 to 12 month were anxious and more than 12 month were depressed. Young women with less education were more anxious compared to educated women.[10] A similar study was conducted in department of psychiatric, NIMHANS, Banglore, Karnataka, by Chaturvedi et al reported the prevalence of depression vary on methodological aspects and vary from 1.5% to 50% (mean 24%; median 22%). The prevalence

of depression in patients with cancer varies with cancer site, clinical course, type of treatment, and presence of pain. The prevalence of major depression in cancer patients on an average, ranges from 13% to 40%.[9] Present study also revealed that in the assessment of anxiety, there were found normal almost equal in both cancer and CKD groups (23.1% and 24.4%) respectively.

The difference in borderline anxiety and abnormal anxiety was found to be significant. While a study from Iran Nikbakhsh et al revealed that the patients had mild anxiety, symptomatic anxiety but mild and symptomatic depression were seen in (26.7%) and (21.3%) patients, respectively. There were significant relationships between anxiety, depression and the age group of the patients with higher frequency in older age. They also found significant relationships between anxiety and depression with the types of cancer and treatment. Breast and stomach cancer patients had the highest prevalence of anxiety and depression and the higher prevalence was observed in the patients who received chemotherapy as the single treatment.[7] Similar study was conducted by Nanjaiah et al reported that the prevalence of at least one psychiatric disorder was 90% cases (45.8%) had anxiety, (54%) had depression and cases (90%) had psychiatric morbidity. Patients suffering for less than 3 months had anxiety; 3 to 12 months were anxious and more than 12 months were

depressed. Young women with less education were more anxious compared to educated women.[10]

Limitations

Major limitations of this study was the Hospital based cross-sectional study design and 18-70 years aged population was taken as a sample from radiotherapy and nephrology OPD and wards of Sir Sunderlal hospital Banaras Hindu University. Biochemical parameters could not be done to all the study subjects due to logistic constraints. The outcome of this approach is highly dependent on standardized scales were used i.e. GHQ-12, HADS, PSLES.

CONCLUSION

On the basis of our final result we may concluded that cancer patients are inclined to various psychological morbidities particularly to depression, anxiety, stress. The mean depression score in CKD patients was more than that of cancer. Whereas the mean anxiety scores also more in Cancer patients than that of CKD patients. Similarly mean score during past 1 year stress more in cancer but score during before 1 year stress more in CKD than that of cancer. In early stages patients are unaware about their psychological illnesses after diagnose they get deep stress; sometimes they have suicidal feelings loneliness etc. Cancer thoroughly breaks the patients psychologically as well as biologically. Along these lines they should be given psychological as well as emotional support by the family members and other relatives too. Psychologists, social workers, government and non-government organizations should come forward to help cancer patients in each and every corner of the country. So that they found themselves secure and will enjoy their broken and remaining days of life. Holistic management and Intervention approach are more needed for cancer patients and CKD patients.

Recommendations

As the results indicated, the prevalence of non communicable disease (cancer) risk factor were gender related, gender sensitive preventive measures should be taken in to consideration. Clinicians, including medical doctors, physiotherapist and nurses in both Government and private health care sectors, should incorporate enquires on modifiable health risk behaviours in order to ensure early detection at the primary health care level. Formulation and strengthening of policies to control the incidence of tobacco consumption in schools, workplace and other public places to minimize effects of smoking on smokers, passive smokers or the general public as a whole. Routine public education on awareness through educational campaign for promoting healthy life styles.

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