Original Research Article

Risk Factors for Psychiatric Co-Morbidity among Patients with Malignancy in a Tertiary Care Hospital Of Himachal Pradesh, India: A Cross Sectional Study

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ABSTRACT

Introduction: Cancer is a serious and potentially life-threatening illness which has an effect on physical and emotional wellbeing of patients and their families. The diagnosis of cancer in itself is a stressful event causing significant psychological distress. The aim of the present study was to find out the psychiatric co-morbidity among cancer patients and correlate the morbidity with type of cancer, its severity, treatment and other relevant variables.

Methodology: It was a cross-sectional observational study. 226 consecutive patients were recruited for this study which was already diagnosed with malignancy. A detailed history from the patient and/or a reliable person who knew the patient well was taken as per pre-designed structured format. Diagnosis of psychiatric disorders was made according to ICD-10.[1]

Results: The prevalence of Psychiatric co-morbidity in our study came out to be 35% with 95% Confidence Interval 29-42%. In our study we had observed that patients who were living alone had high percentage of psychiatric disorders as compared to those living with partners and this difference was found to be statistically significant.

Conclusion: Significant percentage of patients with malignancy had co-morbid psychiatric illnesses. Patients with malignancy need careful assessment for the presence of psychiatric co-morbidity especially patients living without partners. Mental health professionals may be included in the treating team.

Key words: Psychiatric co-morbidity, Malignancy, Depression, living alone, ICD-10

INTRODUCTION

Cancer is a serious and potentially life-threatening illness which has an effect on physical and emotional wellbeing of patients and their families. The diagnosis of cancer in itself is a stressful event causing significant psychological distress. Cancer is the second most common cause of death after heart disease.[2] The burden of cancer continues to grow with an increasing number of new cases and deaths each year. Cancer patients have to face many important issues like fear of death, interruption of life plans, changes in body image and self-

esteem, changes in social role and lifestyle. Several studies have underlined the high prevalence of psychiatric symptoms and disorders in patients with malignancy. The prevalence rate reported in various studies ranges from 5 to 50%, a variation that can be attributed to differences in sample size, the disease itself and treatment factors.[1,2,3,4] Various potential predictors of psychiatric morbidity have been identified by researchers which include factors associated with poor psychological adjustment to cancer. Considering the fact that the prevalence of cancer in India is rising, and there is considerable psychiatric co-morbidity in cancer patients, the importance of research from our country cannot be overemphasized. The aim of the present study was to find out the psychiatric co-morbidity among cancer patients and correlate the morbidity with type of cancer, its severity, treatment and other relevant variables.

MATERIAL AND METHODS

Present Study was conducted at Indira Gandhi Medical College (IGMC) and Hospital, Shimla, which is the premier Tertiary Care Centre of Himachal Pradesh, located in North India. It was a cross-sectional observational study. 226 consecutive patients were recruited for this study which were already diagnosed with malignancy and were attending Radiotherapy outpatient department (OPD) services at IGMC, Shimla during 1st August 2016 to 31st July 2017 A written informed consent was obtained from all eligible patients before participating in the study. A detailed history from the patient and/or a reliable person who knew the patient well was taken as per pre-designed structured format. Diagnosis of psychiatric disorders was made according to ICD-10.[1]

Statistical analysis

Data was analyzed using SPSS software version 22.0. Descriptive statistics were calculated as percentages and proportions (with 95% Confidence Interval, wherever required) for qualitative variables, and for calculation of quantitative variables, mean and standard deviation were used. Chi square was used for determining associations between psychiatric co-morbidity and different variables (risk factors). A two-sided p-value of less than 0.05 was considered as statistically significant.

Characteristic	Number	Percentage (%)
Gender		
Male	112	49.6
Female	114	50.4
Locality		
Rural	194	85.8
Urban	32	14.2
Age group (Years)		
18-39	39	17.3
40-59	125	55.3
60 and above	62	27.4
Living with		
Partner	197	87.2
Single	29	12.8
Religion		
Hindu	225	99.6
Muslim	1	0.4
Occupation		
Professional / Skilled	22	9.7
Semiskilled	77	34.1
House wife	101	44.7
Unemployed	26	11.5
Education		
Graduate and above	39	17.3
10-12th	50	22.1
1-10th	47	20.8
Illiterate	90	39.8
Socioeconomic status		
Upper	27	11.9
Upper Middle	82	36.2
Lower Middle	78	34.5
Lower	39	17.2
Smoking status		
Smoker	112	49.6
Non smoker	114	50.4
Alcohol status		
Alcoholic	69	30.5
Nonalcoholic	157	69.5
Site of malignancy		
Pelvis and Genitourinary	63	27.8
Respiratory System	42	18.6
Gastrointestinal system	32	14.1
Breast	25	11.0
Oral Cavity	31	13.7
Others	33	14.6
Stage of Malignancy		
Early	68	30
Advanced	158	70

RESULT

Table 1 Distribution of patients according to different variables (n=226)

In our study, there were 226 participants. Mean age of the participants was 51.3 years with standard deviation of 12.8 years. Range for the age was between

18 and 83 years. The prevalence of Psychiatric co-morbidity in our study came out to be 35% with 95% Confidence Interval 29-42%.The distribution of the participants according to different socio-demographic variables is given in Table 1.In our study we had observed that patients who were living alone had high percentage of psychiatric disorders as compared to those living with partners and this difference was found to be statistically significant. Association of different variables with psychiatric co-morbidity is given in Table 2.

Table 2: Association of different sociodemographic and clinical variables with psychiatric co-morbidity.

Variables (n)	Psychiatric Co-morbidity (n=79) Yes	No	Chi Square value	P value
Gender				
Male	37	75	0.360	0.549
Female	42	72		
Locality				
Rural	72	122	2.80	0.094
Urban	7	25		
Age group				
18-39	11	28		
40-59	48	77	1.63	0.442
60 and above	20	42		
Living with				
Partner	75	122	6.55	0.010
Single	4	25		
Religion				
Hindu	79	146	--	--
Muslim	0	1		
Occupation				
Professional / Skilled	8	14		
Semiskilled	27	50	1.94	0.583
House wife	38	63		
Unemployed	6	20		
Education				
Graduate and above	12	27		
10-12th	16	34	3.68	0.298
1-10th	13	34		
Illiterate	38	52		
Socioeconomic status				
Upper	6	21		
Upper Middle	26	56	4.17	0.243
Lower Middle	33	45		
Lower	14	25		
Smoking status				
Smoker	41	71	0.26	0.606
Non smoker	38	76		
Alcohol status				
Alcoholic	22	47	0.41	0.521
Nonalcoholic	57	100		
Site of malignancy				
Pelvis and Genitourinary	23	40		
Respiratory System	11	31		
Gastrointestinal system	14	18	4.33	0.502
Breast	11	14		
Oral Cavity	11	20		
Others	9	24		

DISCUSSION

Mean age of the participants was 51.3 years with standard deviation of 12.8 years. Moe than half of the patients were in the age group18 to 39 years (55.3%). This finding is almost similar to the studies done by Minagawa et al (1997)[5] and Hammerlid E et al (1999)[6] where the mean age was 67.2±11.9 years and 63 years respectively. Akechi T et al (2001)[7] and Montazeri A et al (2001)[8] found mean age 69±9 years with age range 40 to 82 years and45.4±9.2 years respectively. Most of the patients were from rural background (85.4%) in our study. In study by Thaper et al (2015)[9] 61.7% patients belonged to rural background and 38.3% were from urban background. Higher representation of rural population in our

study is in consonance with the Census data of 2011 from the state of Himachal, according to which more than 90% of the population lives in villages (Census, 2011) Maximum patients (27.8%) had malignancy of pelvis and genitourinary system followed by respiratory system malignancy (18.6%), malignancy of breast (11.0%), gastrointestinal system malignancy (14.1%), oral cavity (13.7%) and other malignancies of (14.6%). Most of the previous studies assessed psychiatric co-morbidities among patients having malignancy at one site only.[1,2,10] More than two third patients (70%) had advanced stage of malignancy whereas 30% patients had early stage malignancy. In the study by Thaper et al (2015),[9] it was observed that 33patients (55%) had early stage of cancer whereas 27 (45%) had advanced stage malignancy.

The prevalence rate of psychiatric diagnosis amongst patients with cancer reported in various studies ranged from 5 to 50%, a variation that can be attributed to differences in sample size, the disease and treatment factor.[1,2,3] In the present study 35% patients met ICD-10 criteria for diagnosis. In a much-quoted study, Derogatis et al (1983)[11] found 47% patients had psychiatric co-morbidity which is almost comparable to our studies.

Psychiatric co-morbidity was had slightly higher (36.84%) in females than in males (33.03%), in the present study. Among patients with in the age group 40 to 59 years (38.4%), psychiatric co-morbidity was slightly higher in our study. Patients who were single or separated (33.33%) had more psychiatric co-morbidity than married patients (48.27%) in our study. Housewives (37.62%), illiterate (42.22%) and upper lower socioeconomic status patients had higher prevalence of psychiatric co-morbidity. However, there was no statistically significant difference among all socio-demographic variables in our study. We could not find any study comparing psychiatric morbidity with these socio-demographic variables.

In our study patients with breast cancer had higher psychiatric co-morbidity (44%) followed by gastrointestinal system malignancies (43.75%) whereas in a study by Zabora et al (2001)[12] patients with lung cancer had greatest distress (43.4%), followed by brain cancer, Hodgkin's disease, pancreatic malignancy, lymphoma, liver cancer, head and neck cancer, breast cancer, leukemia, melanoma, colon cancer, prostatic cancer and finally gynecological malignancy patients. In our study there was no significant difference with regard to the site of malignancy. This was due to the fact that our study had smaller sample size (n=226) as compared to larger sample size (n=4496) in the study by Zabora et al (2001).[12]

Psychiatric morbidity was higher though not statistically significant in patients with advanced stage of malignancy (40%) compared to early stage of malignancy (24%) in our study. In a study by Thaper et al (2015)[9] it was found that 77.7% patients with advanced stage of malignancy had psychiatric co-morbidity as compared to early stage malignancy patients in which it was 18.18% and it was statistically significant.

CONCLUSIONS

Significant percentage of patients with malignancy had co-morbid psychiatric illnesses. Patients with malignancy need careful assessment for the presence of psychiatric co-morbidity especially patients living without partners. Mental health professionals should be included in the treating team. This would not only help in timely and appropriate interventions for these mostly treatable co-morbid psychiatric disorders but also would improve the quality of life of such patients.

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How to cite this article: Gupta V, Sharma RC, Sharma DD. et al. Risk factors for psychiatric co-morbidity among patients with malignancy in a tertiary care hospital of Himachal Pradesh, India: a cross sectional study. International Journal of Research and Review. 2019; 6(8):172-176.

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