



A PROSPECTIVE STUDY ON TREATMENT VARIABLES AND PSYCHIATRIC COMORBIDITY AMONG CANCER PATIENTS

Psychiatry

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ABSTRACT

Study was planned to assess the Psychiatric disorder as co-morbidity, treatment variables and psychiatric comorbidity in a group of cancer patients, attending a tertiary care hospital for the treatment .Consecutive Sample of 100 patients was selected for the study, those who attended the clinic in the Department of Radiotherapy, Surgery, and Medical ward for the treatment of cancer, Thanjavur Medical College.we found Psychiatric co-morbidity is highly prevalent in patients with cancer patients. Adjustment disorder and depression are the most common Psychiatric co-morbidity associated with Cancer patients. There is no risk of developing a co-morbid Psychiatric illness with stage of cancer. There is no difference with respect to Duration of Illness, in the presentation of psychiatric comorbidity. There is significant prevalence of psychiatric morbidity, among the patients with duration of last treatment. There is high prevalence of psychiatric morbidity among the patient receiving Radio therapy than CT/ST.

KEYWORDS

cancer , psychiatric co morbidity , psychiatric illness

1.INTRODUCTION

Cancer is the one of the leading cause of death, worldwide accounting for 7.6 million deaths that are around 13% of all deaths in 2008, and about 70% of all Cancer deaths occurred in low and middle income countries. Death due to cancer are projected to continue to rise above 11million by 2030. In 1980, A Meta Analysis of 58 studies showed that younger patients reported significantly more depression, anxiety and general distress than studies with older patients. A study done by Derogatis et al noted that prevalence of psychiatric co-morbidity is 47% of the cancer patients comparatively high than the general medical patients. More than two thirds of those represent adjustment disorders, 10 to 15 percent major depression, Adjustment disorder is the most common psychiatric co-morbidity seen cancer patients. In-patient studies show higher the incidence of 20% to 45% of depression and 15% to 75% of delirium. Conceptually, these are disorders with emotional and behavioural symptoms which are responses to an identifiable stressor.

Recent studies found that the factors such as socio-economic status, social support, performance capacity, recent losses, and awareness of the diagnosis of Cancer might affect the rate of psychiatric disorders .

It is thought that socio-cultural context plays an important role in the occurrence of mental disorders. As Bailey et.al suggested culture may influence symptom expression. In Asia, the individuals suffering from depression tend to presented with somatic symptoms. While neglecting the psychological symptoms. Some Asian patients believe that cancer is a form of God's punishment for their past mistakes therefore, patients and their families are reluctant to discuss their emotional distress and experiences due to cancer. In general, cultural beliefs can also influence, the way the health care system practices, medicine, as well as the Attention to the psychosocial aspects of the disease is equally important to cancer treatment; especially regarding psychopathologies because they significantly impact morbidity, low adherence to treatment, hospitalization duration, prognosis, quality of life, and patient survival.

2. AIMS

To assess the treatment variable's and psychiatric comorbidity among cancer patients, attending a tertiary care hospital for the treatment.

3.MATERIALS AND METHODS

Setting:

The study was conducted in the Patients, who attending the outpatient clinic and admitted in wards for the treatment of cancer, in the Department of Radiotherapy, Medical Oncology ward and Surgical ward, Thanjavur Medical College Hospital.

Study Design:

A "Cross Sectional – Descriptive Study Design" was used in this study.

Recruitment of Patients:

Consecutive Sample of 100 patients was selected for the study, those who attended the clinic in the Department of Radiotherapy, Surgery, and Medical ward for the treatment of cancer, Thanjavur Medical College, during the period of January 2017 – June 2017. Those who fulfilled and satisfied the inclusion criteria and willing for the study were selected.

INCLUSION CRITERIA:

1. Patients in the age group of 18 – 65 years.
2. Histologically proven cases of carcinoma.(ICD 10-C50)
3. Patients who were aware of their diagnosis.
4. Those who are willing for the study.

EXCLUSION CRITERIA:

1. Patients below 18 years and above 65 years of age.
2. Patients with history of Psychiatric illness before the onset of disease.
3. Patients who are in the immediate post-operative period and patients with severe physical illness
4. Patients with Brain and Endocrine cancer (Thyroid, Parathyroid, Thymoma, Pituitary) are excluded.
5. Patients those who were unaware of the diagnosis and those who were unwilling for the study.

METHODOLOGY

A sample of 100 patients diagnosed with carcinoma who were attending OP/IP in Radiotherapy ward, medical and surgical ward were selected, assessed and included for the study.

OPERATIONAL DESIGN:

1. The study was been conducted at Thanjavur Medical College & Hospital, duration of 6 months , between the period of January 2017 to June 2017.
2. The study was approved by Institutional Ethical Committee, Thanjavur Medical College Hospital.
3. The sample was chosen those who attended Surgical, Medical and Radiotherapy OP/IP.
4. Every consecutive patient who met the inclusion and exclusion criteria were selected, and included in the study.
5. The subjects were explained about the nature of the study and informed consent was obtained from them.
6. Semi- structured proforma was used to collect the Socio Demographic details.
7. A Complete Physical Examination including Neurological Evaluation and detailed Mental Status Examination was done to all the selected subjects.
8. All subjects were assessed by General Health Questionnaire -12 (GHQ-12).
9. All subjects were assessed by MINI International neuropsychiatric interview for diagnosing psychiatric disorder and based on the diagnosis specific scales like Hamilton

depression rating scale, Hamilton anxiety rating scale were administered.

10. All subjects were assessed by Kuppuswamy rating scale for socio economic status.
11. Likewise 100 consecutive patients were assessed.

Statistical design:

Statistical design was formulated using the data collected as above, for each of the scales and socio-demographic variables percentage analysis and descriptive analysis were used. The central values and dispersion were calculated. In comparison of the data for categorical variables chi-square were used. For multiple comparisons of more than two numerical variables, one way ANOVA and "F" tests were used.

4. RESULTS

A total of 100 patients diagnosed with malignancy were included for the study. Patients' age ranged from 18 to 65 years with the mean age of 48.29 years and the median age is 49 years. Among the 100 cancer patients 38 (38.0%) were males and 62 (62.0%) were females, majority of them belong to the age group of 36 – 50 years (46.0 %), 34.0% of patients belong to 50 – 65 years and remaining 20.0% belong to 18 – 35 years group. Among them 88.0% patients were from rural area and remaining 12.0% were from the urban locality. Considering the education status 53% patients were illiterate and 37% of patients were studied primary school. 2.0% studied up to high schools and 7.0% finished higher secondary education only one of them completed degree. Regarding the occupational status, 65.0% were unemployed, 17.0% were employed in semi skilled jobs, 13.0% under unskilled and 5.0% were skilled workers. Among the study groups 54.0% belonged to lower middle, 2.0% from the upper middle, and 27.0% were from upper lower and 17.0% were from the lower socio economic status. Majority of them were married (98.0%) and only 2.0% were unmarried. Most of them (87.0%) belonged to the nuclear family and remaining (13.0%) belonged to joint family. Among the cancer group 29.0% had the past history of using tobacco alone in the form of chewing and smoking, where as 34.0% had past history of alcohol and tobacco. The remaining 37.0% were not exposure to any kind of substances in the past.

Table – 1: Stage Of Cancer And Psychiatric Co-morbidity

STAGE	Psychiatric disorder		Total		Statistical inference
	Yes	No			
a) Early Carcinoma	26 44.8%	20 47.6%	46	46.0%	$X^2=.076$ Df=1 .782>0.05 Not Significant
b) Advanced Carcinoma	32 55.2%	22 52.4%	54	54.0%	

the prevalence of psychiatric morbidity among the early stage of cancer (44.80%) and advance stage (55.2%) as compared to patients without the psychiatric disorder 47.60% in early and 52.40% in advanced cancers. The results were not found to be statistically significant.

Table – 2 : Mode Of Treatment With Psychiatric Co-morbidity

MODE OF TREATMENT	Psychiatric disorder		Total		Statistical inference
	Yes	No			
Radiotherapy	23 39.7%	16 38.1%	39	39.0%	$X^2=1.344$ Df=2 .511>0.05 Not Significant
Chemotherapy	15 25.9%	15 35.7%	30	30.0%	
Surgery	20 34.5%	11 26.2%	31	31.0%	

<0.05* - significant <0.01** - highly significant.

Table 3: Psychiatric Morbidity With Treatment variable

PSYCHIATRIC DISORDER	RT	CT	ST	TOTAL	STATISTICAL INFERENCE
Depression	6 15.4%	3 10.0%	7 22.6%	16 16.0%	$X^2=12.709$ Df=12 .391>0.05 Not Significant
Dysthymia	0 .0%	2 6.7%	1 3.2%	3 3.0%	
Panic disorder	0 .0%	1 3.3%	3 9.7%	4 4.0%	
PTSD	0 .0%	1 3.3%	1 3.2%	2 2.0%	
GAD	3 7.7%	1 3.3%	2 6.5%	6 6.0%	
Adjustment disorder	14 35.9%	7 23.3%	6 19.4%	27 27.0%	
NAD	16 41.0%	15 50.0%	11 35.5%	42 42.0%	

prevalence of psychiatric morbidity among the patients who receiving the Radiotherapy, chemotherapy and surgery. Among the 39 Patients who receiving the radiotherapy treatment, 6 had depression, 3 had GAD, 14 patients had Adjustment disorder. 30 patients on chemotherapy treatment, 3 had depression, 2 had Dysthymia, 1 panic disorder, 1 had PTSD, 1 had GAD and 7 patients had Adjustment disorder. Among 31 patients on surgical treatment, 7 had depression, 1 had Dysthymia, 3 had panic disorder, 1 had PTSD, 2 had GAD and 6 patients had Adjustment disorder. The results found no significance.

Table 4: Duration Of Rt/ct/st And Psychiatric Co-morbidity

DURATION OF TREATMENT	Psychiatric disorder		Total		Statistical inference
	Yes	No			
Below 3 weeks	12 20.7%	16 38.1%	28	28.0%	$X^2=3.661$ Df=1 .056>0.05 Not Significant
Above 3 weeks	46 79.3%	26 61.9%	72	72.0%	

<0.05* - significant <0.01** - highly significant.

Table 5: Duration Of Treatment Of Radiotherapy And Psychiatric Co-morbidity

Duration of Radiotherapy	Psychiatric disorder	Normal		Total N=39	Statistical inference
Below 3 weeks	7 30.4%	11	68.8%	18 46.2%	$X^2=5.574$ Df=1 .018<0.05 Significant
Above 3 weeks	16 69.6%	5	31.3%	21 53.8%	
Total	2 100.0%	16	100.0%	39 100.0%	

Table 6: Duration Of Treatment Of Chemotherapy And Psychiatric Co-morbidity

DURATION OF TREATMENT	MINI PLUS			Statistical inference
	Psychiatric disorder	Normal	Total N=30	
Below 3 weeks	2 13.3%	4 26.7%	6 20.0%	$X^2=.833$ Df=1 .361>0.05 Not Significant
Above 3 weeks	13 86.7%	11 73.3%	24 80.0%	
Total	15 100.0%	15 100.0%	30 100.0%	

Table 7: Duration Of Treatment Of Surgery And Psychiatric Co-morbidity

DURATION OF TREATMENT	MINI PLUS			Statistical inference
	Psychiatric disorder	Normal	Total N=31	
Below 3 weeks	3 15.0%	1 9.1%	4 12.9%	$X^2=.220$ Df=1 .639>0.05 Not Significant
Above 3 weeks	17 85.0%	10 90.9%	27 87.1%	
Total	20 100.0%	11 100.0%	31 100.0%	

Table 8: Number Of Treatment Of Ct/rt/surgery And Psychiatric Morbidity

NO. CT/RT	Psychiatric disorder			Statistical inference
	Yes	No	Total	
Below 3 numbers	26 44.8%	21 50.0%	47 47.0%	$X^2=3.616$ Df=2 .164>0.05 Not Significant
Above 3 numbers	32 55.2%	21 50.0%	53 53.0%	

Table 9: Duration From Last Treatment And Psychiatric Morbidity

DURATION LAST Treatment	Psychiatric disorder		Total		Statistical inference
	Yes	No			
Below 7 weeks	20 34.5%	25 59.5%	45	45.0%	$X^2=6.172$ Df=1 .013<0.05 Significant
Above 7 weeks	38 65.5%	17 40.5%	55	55.0%	

<0.05* - significant <0.01** - highly significant.

5.DISCUSSION & CONCLUSION

Treatment variables and psychiatric co-morbidity:

Chemotherapy:

In this study out of 30 patients undergoing Chemotherapy,

16.7% patients (depression 10.0% and dysthymia 6.7%) had depressive disorder, 9.9% patients (Panic disorder 3.3%, PTSD 3.3%, GAD 3.3%) had anxiety disorder and 23.3% patients had adjustment disorder.

In the study from kerala by Pandey et al¹⁰⁶, it was shown that among the patients undergoing chemotherapy, 16.23% had depression and 15.38% had anxiety disorder. The history of chemotherapy has been shown to be associated with psychiatric problems. This study result is similar to the depression and low prevalence in anxiety disorder, and high prevalence of adjustment disorder. This points towards the fact that the prevalence of psychiatric co-morbidity is high in chemotherapy population in South Indian Population.

Surgery:

In this study, among 31 patients who had undergone surgical treatment, 25.8% (depression 22.6%, dysthymia 3.2%) of had depressive disorders, 19.4% (panic disorder 9.7%, PTSD 3.2%, GAD 6.5%) had anxiety disorder and 19.4% had Adjustment disorder.

In a study conducted by Morris et al. found 22% prevalence of depression in who had undergone mastectomy for breast cancer and Maguire et al.⁸¹ found 26% moderate or severe depression among women who had undergone mastectomy compared with a 12% of prevalence of depression in women with benign disease. The prevalence of depression in this study is similar to the above mentioned studies.

Radiotherapy:

In this study, among the 39 patients who had undergone Radiotherapy, 15.4% had depression, 7.7% had anxiety disorder and 35.9% had adjustment disorder. In the study done by Schmale et al⁵⁵ have shown significant psychiatric problems associated with radiotherapy.

Duration of treatment in Radiotherapy and psychiatric co-morbidity:

In this study patient with psychiatric co-morbidity in Radiotherapy patient compare with duration of treatment, below 3 weeks had 30.4% had psychiatric co-morbidity, 69.6% above 3 weeks of RT had psychiatric co-morbidity. This result was found to be significant ($p=0.018$). This result shows high prevalence of psychiatric co-morbidity, in patients had more duration of Radiotherapy treatment. There is no risk of developing a co-morbid Psychiatric illness with stage of cancer. There is no difference with respect to Duration of Illness, in the presentation of psychiatric comorbidity. There is significant prevalence of psychiatric morbidity, among the patients with duration of last treatment. There is high prevalence of psychiatric morbidity among the patient receiving Radio therapy than CT/ST.

Based on the findings in our study, it is understood that Cancer patients have a high risk of Psychiatric illness and when emotional factors are not addressed adequately, the morbidity of these patients may increase. Early recognition and treatment of Psychiatric illness by involving a Psychiatrist as a team member in the Oncology clinic and liaison with Oncologist may lead to a better outcome. Further studies to characterize the pattern of Psychiatric morbidity and their impact on daily living and longitudinal studies to observe improvement with pharmacotherapy and psychotherapy are necessary.

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