# Study of psychiatric morbidity in cancer patients- in teaching hospital

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#### Abstract

**Introduction**: Cancer is a leading cause of death worldwide. Co morbidity of cancer and psychiatric disorders can be as a result of the disease itself or due to associated problems.

Aim: To know the prevalence of psychiatric disorders in patients suffering from cancer and its relation to the awareness of cancer.

**Materials and Method:** 245 patients diagnosed with carcinoma referred to the department of psychiatry were selected for the study. Mini International Neuropsychiatric interview-plus{MINI-plus} was used to diagnose psychiatry morbidity and awareness of cancer was assessed by the interviewer using a questionnaire.

**Results:** Out of 245 patients, 113 patients had Psychiatric disorders. The mean age of the patients was  $53.7 \pm 9.8$  years. Breast cancer 41.3% is most common cancer observed while GIT related cancer are second common cancer. Major Depressive Disorder (28.3%) and adjustment disorders (26.6%) are most common psychiatric disorder found in the study population. Presence of psychiatric disorders is more in patients who are aware of cancer diagnosis which is highly significant (p=<0.05). **Conclusions**: There is strong relationship between presence of Psychiatric disorders and awareness of cancer.

### Introduction

Cancer with mental disorder is one of the leading causes of death in developed countries.<sup>(1)</sup>

Cancer patients have a high rate of psychiatric co-morbidity; approximately one-half exhibit difficulties. Psychological complications like adjustment disorder, depressed mood, anxiety, impoverished life satisfaction, or loss of self-esteem are most common. Depression is the main psychiatric disorder which occurs in advanced state. In addition to these psychiatric conditions, non-specific distress is also very common in cancer patients, with an incidence varying from 15% to 42%.<sup>(2)</sup>

Although there is still no strong evidence that stress directly affects cancer outcomes, some studies suggest that patients can develop a sense of helplessness or hopelessness when stress becomes overwhelming.<sup>(3)</sup> This response is associated with higher rates of death; mechanism for this outcome is unclear. It could be that people who feel helpless or hopeless do not seek treatment when they become ill, give up prematurely or fail to adhere to potentially helpful therapy, engage in risky behaviours such as drug use, or do not maintain a healthy lifestyle, resulting in premature death.

Some expert organizations recommend that all cancer patients be screened for distress early in the course of treatment.<sup>(4)</sup> Some also recommend rescreening at critical points along the course of care. Health care providers can use a variety of screening tools, such as a distress scale or questionnaire, to gauge whether cancer patients need help managing their emotions or with other practical concerns. Patients who show moderate to severe distress are typically referred to appropriate resources, such as a

clinical health psychologist, social worker, chaplain, or psychiatrist.

The National Comprehensive Cancer Network has recommended routine screening of all cancer patients for psychological distress and simple instruments are available to measure distress in cancer patients.<sup>(5)</sup> Making psychiatric diagnoses and rapidly identifying patients who need help are difficult for many reasons. The awareness about the cancer diagnosis and its relationship to the psychiatric morbidity has always been a subject of debate. The non-awareness on the part of the patient can be attributed to many causes notable being illiterate, denial, decision of their family members, conservative society, stigma attached to the word cancer and financial implications. Hence our aim of the study is to know the psychiatric disorders in patients suffering from cancer and its relation to awareness of the cancer.

Previously studies were conducted in India by Chaturvedi et al,<sup>(6)</sup> Ashraff et al<sup>(7)</sup> in Malignant diseases had shown high prevalence of psychiatric disorders. There is hardly any data pertaining to this study in south India Hence we have taken up the study aiming to know the psychiatric disorders in patients suffering from cancer and its relation to the disease.

### Materials and Method

This is a cross-sectional study done for a period of 11 months from January 2016 to November 2016 in-patients admitted to oncology departments that were referred to Department of Psychiatry for consultation.

The approval of the ethical committee from the institute was obtained for the study. Patients were selected without regard to diagnostic classification, treatment regimen or duration of disorder. Written consent was taken from patients and accompanying attendees of patient were also informed in detail about the aims of study.

Detailed interviews were done to note down the, Demographic details, illness details and assess for knowledge of the cancer diagnosis, both patients and relatives were investigated separately. First we asked relatives about their patients, whether they knew his or her diagnosis. Also patient's awareness about the diagnosis of cancer was determined after detailed questioning. At most care was taken to ask patients about their disorder and the reasons for hospital admission without using the reference words of cancer. Selected patients were subjected to Mini International Neuropsychiatric Interview-plus (MINIplus)<sup>(8)</sup> for evaluation of Psychiatric diagnosis. The MINI is a DSM-IV based diagnostic interview with high reliability and validity. Interview was conducted by psychiatrist who was attending the case.

Inclusion Criteria: Patients diagnosed with cancer. Age group of >18 years of both gender.

Exclusion Criteria: H/o of psychiatric disorder in patient, patient who refused to participate in the study, patients admitted for diagnostic procedure, terminally ill patients, patients admitted to an ICU.

The data was then subjected to appropriate statistical methods. Data were entered and analyzed using SPSS 17.0 version. Mean ±SD, percentages were calculated.

# Results

Total of 245 were selected for the study. In Demographic variables (Table 1) maximum number of the patients with cancer are in the age group of 56-65 (35.9%) followed by the age group 46-55 (26.9 %). The mean age of the patients was  $53.7 \pm 9.8$ years. There were a total of 136 (55.5%) females and 109 (44.4%) males, of a total of 245 in the studied cancer population. Patients were more having a rural background (64.4%) as compared to the urban (35.5%). According to socioeconomic status Upper lower group are more effected group ie. 93 (38%). Predominantly effected were Unskilled professionals patients 114(46.5%), from nuclear families 112(49%), illiterates 167(68%) and married 191(77.9%).

Coming to the clinical characteristics of the cancer (Table 2), Breast cancer (41.3 %) is most common cancer observed in the study, followed by GIT related cancers(17.4%). Examining the awareness of cancer diagnosis among the patients, Urological cancer patients were more aware of their diagnosis (69%.2%) followed by gastrointestinal

cancers (67.4%), breast cancer (63.4%) and Head and neck cancer.

Table 1: Demographic details in study					
Ch	aracteristic	No of	Percentage		
		patients			
		N=245			
Age in	tervals ( in years		1		
	35-45	18	7.3		
	46-55	66	26.9		
	56-65	88	35.9		
	66-75	45	18.3		
	>75	28	11.4		
Age	Mean + SD	53.7+9.8			
Gende	r				
	Males	109	44.4		
	Female	136	55.5		
Reside	ence				
	Urban	158	64.5		
	Rural	87	35.5		
Socioe	conomic status				
	Lower	24	9.8		
	Upper lower	93	37.9		
	Middle				
		59	24.1		
	upper middle	47	19.2		
	Upper	22	8.9		
Occup	ation Household		1		
	Unskilled	114	46.5		
	Semiskilled	62	25.3		
	Skilled	40	16.3		
	Professional	29	11.8		
Family					
	Nuclear	122	49.8		
	Joint	78	31.8		
	Extended	45	18.4		
Litera	cy status				
	Illiterate	167	68.1		
	Primary	38	15.5		
	Secondary	19	7.7		
	Matric	14	5.7		
	Graduate	7	2.8		
Marita	al status		•		
	Unmarried	37	15.1		
	Married	191	77.9		
	Widowed	17	6.9		
			3.7		

Examining the psychiatric morbidity in these patients and its relation to the awareness (Table 3), out of total 245 cancer diagnosed patients 113 patients had psychiatric disorder, prevalence of 46.1 % was observed.

Type of cancer	Aware	%	Un-	%	Total	%
			aware			
Breast cancer	65	63.7	37	36.3	102	41.3
Gynaecological	17	56.6	13	43.3	30	12.1
Lung	4	66.6	2	33.3	6	2.4
Leukaemia and lymphomas	13	59.09	9	40.9	22	8.9
Urological	9	69.2	4	30.8	13	5.3
GIT related	29	67.4	14	32.6	43	17.4
Head and neck	12	63.1	7	36.9	19	7.7
Skin	7	70	3	30	10	4.0
Musculoskeletal	0		2	100	2	0.8
Total	154		91		245	100

 Table 2: Awareness of type of cancer in respect to psychiatric disorder

Major depression (28.3%) and Adjustment disorders (26.6%) contributed to majority of the psychiatric morbidity in this group. They were followed by Phobic disorders (13.2%) and Somatoform Pain disorders (12.3%).

Out of the patients with a psychiatric diagnosis 71.6% were aware of their condition and 28.4% patients were unaware of their condition. The p-value of the comparison between the aware and the unaware patients for the presence of the psychiatric co-morbidity was significant (<0.05)(Table 4). Major

Depressive Disorder was the most common psychiatric disorder present in 28.3% of patients with the psychiatric co-morbidity out of which 25 were aware and 7 were unaware of their diagnosis. The overall prevalence of the Major Depressive Disorder was 13%. Adjustment disorder was present in 26.6% of the patients with psychiatric co-morbidity out of which 19 were aware and 11 were unaware of their diagnosis. The prevalence of Adjustment Disorder was 12.2% of the studied patients.

Table 3: Psychiatric disorders and relationship to awareness in the po	pulation
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Disorder	Aware		Unaware		Total prevalence		Prevalence
	Ν	%	Ν	%	Ν	%	In the
							sample
Major Depressive Disorder	25	22.1	7	6.2	32	28.3	13
Suicidal tendency	2	1.7	0	0	2	1.7	0.8
Panic Disorder	3	2.6	0	0	3	2.6	1.2
Alcohol Abuse	4	3.5	0	0	4	3.5	1.6
Generalized Anxiety Disorder	9	7.9	4	3.6	13	11.5	5.3
Adjustment Disorder	19	16.8	11	9.8	30	26.6	12.2
Phobic disorders	10	8.8	5	4.4	15	13.2	6.1
Somatoform Pain Disorder	9	7.9	5	4.4	14	12.3	5.7
Total	81	71.6	32	28.4	113	100	46.1

 Table 4: Association of Awareness and psychiatric disorders in cancer patients

Study population	Aware	Unaware	$\chi^2$ ( P value)
Cancer with psychiatric morbidity	81	32	6.9952 (.008)
Caner without psychiatric morbidity	73	59	(.000)

# Discussion

People who have cancer may find the physical, emotional, and social effects of the disease to be stressful. Those who attempt to manage their stress with risky behaviours such as smoking or drinking alcohol or who become more sedentary may have a poorer quality of life after cancer treatment. In contrast, people who are able to use effective coping strategies to deal with stress, such as relaxation and stress management techniques, have been shown to have lower levels of depression, anxiety, and symptoms related to the cancer and its treatment.

Maximum number of the patients with cancer are in the age group of 56-65 (35.9%) followed by the age group 46-55 (26.9%). The mean age of the patients was  $53.7 \pm 9.8$  years. Montazeri et al<sup>(13)</sup> conducted study on 56 patients with breast cancer where the mean age was 45.4 years, In study by Kissane DW et al<sup>(14)</sup> the mean age of participants suffering from cancer was 49.8 years.

There were a total of 136 (55.5%) females and 109 (44.4%) of a total of 245 in the studied cancer population with predominance of occurrence in females

which correlates with study from Kerala by Pandey *et al.*<sup>(15)</sup> which also showed similar results.

Patients were more having a rural background, with lower socio economic strata, illiterates, Unskilled people from nuclear families and married. Our study is in coherence with study done by Gagan Hans et al.<sup>(9)</sup>

Urological cancer patients were aware of their diagnosis (69%.2) followed by gastrointestinal cancers (67.4%) and breast cancer (63.4%) which is in agreement with study done by Gagan Hans et al.<sup>(9)</sup> with urological cancer patients were aware of their diagnosis (80%), gastrointestinal cancers (48%) and the breast cancer (17.5%).

Present study done in teaching hospital conducted on 245 patients suffering from primary diagnosis of cancer prevalence of 46.1% (113/245) was observed. This is in close concordance with the findings of previous studies by Gagan Hans et al<sup>(9)</sup> and Derogatis et al.<sup>(10)</sup> study who found a prevalence of psychiatric disorders in 47% of the patients. Ashraff et al.<sup>(7)</sup> at AFMC Pune found out that 44% of the patients had a psychiatric diagnosis and Mishra et al.<sup>(12)</sup> in a study done at Tata Memorial Cancer Hospital, Mumbai found that 63% had some psychiatric disorder.

The prevalence rate for all depressive disorders combined (major depression, suicidal tendency and, adjustment disorders) was 25% in sample of patients under study which is comparable to Alexander et al.<sup>(11)</sup> who found total prevalence of depressive disorders to be 32%. The prevalence rate of anxiety disorders (panic disorder, generalised anxiety disorder, phobic disorders and somatoform disorders) was 18% in our study. Depression and anxiety disorders together accounted over 93% of all psychiatric diagnoses. Our findings are in keeping with the observation of Derogatis et al.<sup>(10)</sup> Alexander et al<sup>(11)</sup> and Gagan Hans et al<sup>(9)</sup> that depressive and anxiety disorders comprise the majority of psychiatric diagnoses in cancer patients. Out of this 46%, 71.6% were aware of their condition and 28.4% patients were unaware of their condition. The p-value of the comparison between the aware and the unaware patients for the presence of the psychiatric co-morbidity is significant (<0.05). This implies that there was significant difference in the presence of the psychiatric co-morbidity among the aware and the unaware patients and the knowledge about the cancer diagnosis significantly increases the chances of developing a psychiatric disorder. This confirms the findings of Alexander et al.<sup>(11)</sup> and Mishra et al<sup>(12)</sup> who also found that there was significant difference in the presence of the psychiatric co-morbidity among the aware and the unaware patients.

The high rate of the patients who were unaware of their diagnosis can be explained on the basis of certain factors, like it may reflect the attitude of the doctor in avoiding informing patients about a cancer diagnosis. Clinical experience suggests that many cancer patients are not well informed about their diagnosis and prognosis, although relatives are informed. The diagnosis of cancer is interpreted as being equivalent to a death sentence by most people. Therefore, the family of a patient may insist on the patient not hearing the word cancer. They often fear that the outcome of treatment could be negatively affected by the patient being informed of the actual condition by a health professional, and the patient could develop severe adjustment problems.

Also some percentage of this high rate of unawareness may be related in part to denial as a defence mechanism. It is well known that patients may often react with denial in the early period of the disease. Most of the patients who were in the early stages of cancer were considered to be unaware of their diagnosis. When confronted initially with a diagnosis of cancer, most patients experience a short period of shock, such that the diagnosis may actually be disbelieved. In this period, denial acts as a defense mechanism permitting the patient to avoid awareness of some painful aspects of the diagnosis.

A lower rate of psychiatric disorders has been observed in the unaware patients in the present study. This can be explained in part that these patients had a more hopeful outlook as to the outcome of treatment. On the other hand, most of the aware patients are usually not well informed by their physicians about the cancer diagnosis and they often obtain information indirectly. This may be related to the higher frequency of psychiatric disorders in the aware patients. Communication and providing satisfactory information about diagnosis, treatment and consent have important implications for psychological adjustment of cancer patients.

# Limitations of study

Number of patients in different cancer groups is small. No structured assessments were used to assess awareness. We need large sample size epidemiological studies.

# Conclusion

There was a high prevalence of psychiatric disorder, especially Major Depression, amongst the cancer patients attending our teaching hospital. Patients who were aware of the diagnosis are more likely to suffer from psychiatric disorder. Our findings indicate strong and immediate relationship between the diagnosis of cancer and psychiatric disorder. Major depressive disorder and Adjustment disorders which contribute over 28.3% and 26.6% of the comorbidity in these patients are highly treatable conditions giving good results which in turn have significant influence on quality of life, treatment compliance and prognosis of these patients.

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