

DEPRESSION IN PALLIATIVE CARE CANCER PATIENTS – PREVALENCE AND INFLUENCE OF PAIN

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ABSTRACT

Background: Depression is an aversive emotional state which has a negative impact on the quality of life of a cancer patient. Identification of clinical depression will lead to improvement of the person's disease state by early intervention.

Methods: 200 cancer patients attending the pain and palliative care clinic were evaluated for depression using DSM-IV criteria for Major Depressive Disorder modified with Endicott's criteria. The severity of pain in the depressed and nondepressed patients was compared.

Results: 71(35.5%) out of 200 patients were found to be suffering from Major Depressive Disorder. Inpatient status (50.7%) and female sex (53.6%) were significantly more among the depressed population. There was also a significant increase in the pain experienced by the depressed compared to the nondepressed patients.

Conclusion: The prevalence of Major Depressive Disorder in terminally cancer patients is high. They also suffer from more severe pain. Early identification and intervention of the depressed state will also help in pain relief of the patients.

Keywords: depression, pain, cancer, palliative care.

INTRODUCTION

Recent years have seen a subtle but noticeable trend in the field of oncology. The focus of attention has accommodated improvement in the quality of life along with advances in the treatment modalities in cancer patients. It is this focus which has led onto the involvement of many mental health professionals in the field of oncology.

Several studies have focused on the prevalence of psychiatric disorders in cancer patients.¹ Depression is one such psychiatric disorder which unfortunately goes unrecognized to a very large extent.² Depression in cancer patients represents a clinically significant problem in all phases of the illness.³ The

reported rates have ranged from as high as 50% to as low as 4.5%. Spiegel (1996) reviewed the reasons for the same –

1. Misattribution of depressive symptoms such as energy loss, appetite disturbance and sleep disturbances to symptoms of cancer or side effects of its treatment.
2. Focus on medical signs and symptoms to the exclusion of psychiatric ones.
3. Therapeutic nihilism regarding psychiatric conditions.²

Research in this field has been hampered by the problems faced in the measurement of depression in

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cancer patients.^{4,5} There are two fundamental reasons for the same:⁶

1. The boundary between the expected affective response and the pathological depression remains arbitrary.
2. Many of the symptoms of medical disorders are identical to those of depressive disorder.

Several factors have been identified as risk factors or predictors of depression in cancer patients. Pain is one of the most feared consequences of cancer. The unidimensional theories of pain have been replaced by multidimensional models.⁷ Several studies have supported this multidimensional nature of pain in cancer patients with emphasis on the affective component.⁷ Pain is one of the risk factors which have been closely linked to depression in cancer patients.⁸ The prevalence of depression is significantly higher in the high pain than the low pain cancer patients.⁹ Depressed cancer patients are more likely to report greater pain intensity, greater interference due to pain and more pain behaviour.¹⁰

Most studies in the field of psychooncology are from the west and very few are from India.¹¹ The present study aims to find out the prevalence of depressive disorder in cancer population with focus on the relationship between pain and depression. Studies of such a relationship with pain in a palliative care setting are very few from India.

MATERIALS AND METHODS

Study Population

The sample for the study was taken from the cancer patients attending the Pain and Palliative Care Clinic at the Medical College Calicut. The Pain and Palliative Care Clinic, Calicut is recognized as a World Health Organization (WHO) demonstration centre for developing countries.

The sample size consists of 200 consecutive patients suffering from cancer meeting the inclusion and exclusion criteria who attended the Pain and Palliative Care Clinic for the first time. This comprised of depressed group (patients diagnosed

to have Major Depressive Disorder) and the nondepressed group (patients who are either normal or suffering from Adjustment Disorder). The study population mainly comprised of terminally ill cancer patients who were referred by various speciality departments.

AIMS

1. To find the prevalence of Major Depressive Disorder in cancer patients attending a pain clinic.
2. To study the influence of pain on Major Depressive Disorder and compare the intensity of pain suffered with the nondepressed group.

PATIENT SELECTION

Patients fulfilling the following criteria were included in the study:

Inclusion Criteria

1. Those cancer patients consenting for the study.
2. Either sex
3. Age between 18 and 60 years
4. Definite diagnosis of cancer confirmed histopathologically

Exclusion Criteria

1. Structural involvement of the central nervous system by the carcinomatous growth.
2. Diagnosis of delirium, dementia, schizophrenia, delusional disorder or psychotic disorder according to DSM- IV
3. Associated alcohol or substance dependence.
4. Associated comorbid medical illnesses like diabetes mellitus, hypertension, epilepsy or AIDS.

STUDY DESIGN

The patients were interviewed following their consultation for pain management. The patients satisfying the selection criteria were assessed using DSM – IV criteria for Major Depressive Disorder (modified version). In the modified version, the four cardinal somatic symptoms that figure prominently in the diagnostic criteria for depression

are substituted by non-somatic associated symptoms (Endicott's criteria). Endicott's criteria have earlier been used along with DSM – IV in depressed medically ill and have been found to be relevant.¹²

1. Significant weight loss or weight gain, decrease or increase in appetite = Fearfulness or depressed appearance in face or body postures.
2. Insomnia or hypersomnia = social withdrawal or decreased talkativeness.
3. Fatigue or loss of energy = brooding, self-pity or pessimism.
4. Diminished ability to think or concentrate or indecisiveness = cannot be cheered up, doesn't smile, no response to good news or funny situation.

The pain experienced most of the time during the last 2 -3 days was recorded by the Visual Analogue Scale (VAS). VAS is a wooden strip with a 10 cm long wire carrying a bead stretched across the middle of the strip. The reverse side of the scale has numbers 0 to 10 at 1 cm interval. The patient is instructed to move the bead across the wire to indicate the pain experienced most of the time during the last 2 to 3 days. The numbers on the reverse side closest to the bead indicate the intensity of pain. VAS has been found to be a reliable and sensitive measure of pain, superior to other measures.¹³ It is the recommended method of assessing pain by WHO for cancer pain management.

ANALYSIS

Comparison of the depressed and the nondepressed groups was done using the Chi-square test, Student's t test, and Snedecors F-test. SPSS (Statistical Package for Social Sciences) was used for analysis.

RESULTS

The sample consisted of 200 cancer patients. The diagnostic split up of the sample is given in Fig 1.

There is no statistically significant difference between the depressed and nondepressed groups

regarding their age distribution. The female population in the experimental group (53.6%) is more than that in the control group (26.4%). This difference is statistically significant. There is no statistically significant difference between the two groups regarding the marital status, religion or type of cancer (Tables 1,2).

The experimental group comprising of depressed patients has more inpatients (50.7%) compared to the control group (32.5%), which is significant (Table 3).

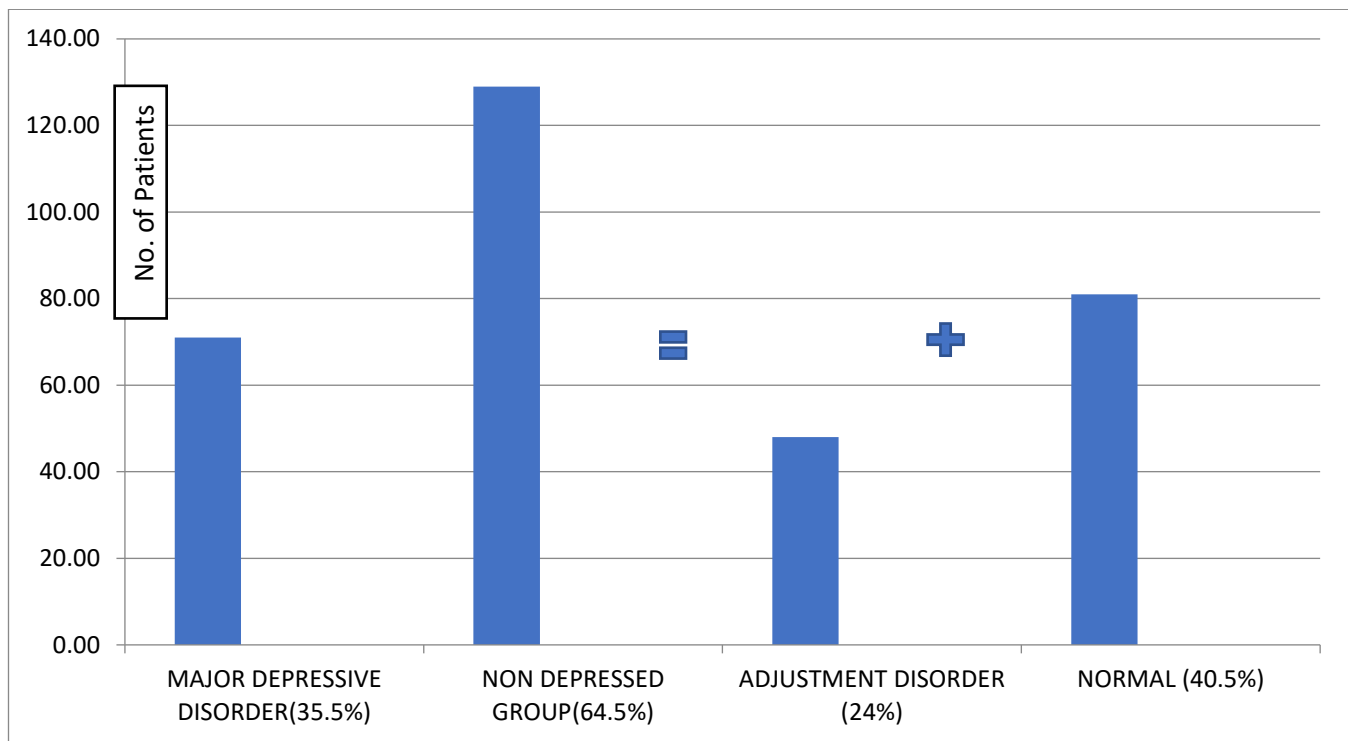
The pain experienced by the depressed group is more than the pain suffered by the nondepressed group. This difference is statistically significant by students t-test ($P < 0.05$) (Table 4).

DISCUSSION

In the present study, 200 cancer patients consulting the pain clinic were evaluated to find the prevalence of Major Depressive Disorder. The severity of pain on depression was also studied. The present study differed from earlier studies by focussing primarily on cancer patients in a palliative care setting.¹⁴ Diagnostic problems regarding the diagnosis of depression as regards the somatic symptoms were excluded by substituting the somatic symptoms in DSM IV by non-somatic associated symptoms proposed by Endicott.¹² Many other studies in this field used assessment measures filled with somatic items.¹⁵

In the present study, 71 out of 200 patients were found to be suffering from Major Depressive Disorder (35.5%). The prevalence rate of 35.5% reported in this study is slightly higher than those reported in earlier studies.⁵ The difference could be because the sample in the present study consisted of cancer patients who were terminally ill, needing palliative care and suffering from a greater severity of pain. No statistical significant association could be got between age, religion, marital status and type of cancer. Two factors which had statistically significant relationship were inpatient / outpatient

Fig 1: Diagnostic split up of the sample



Depressed group = Major Depressive Disorder, 35.5%), n=71. Nondepressed group = Normal (40.5%, n=81) + Adjustment disorder (24%, n=48).

Table 1: Comparison of basic demographic data

VARIABLE	DEPRESSED GROUP: n(%)	NON-DEPRESSED GROUP: n(%)	TEST
AGE			
18-30 yrs	4(5.6)	7(5.4)	$\chi^2 = 4.051$ Not significant
31-40 yrs	11(15.5)	19(14.7)	
41-50 yrs	27(38.1)	33(25.6)	
51-60 yrs	29(40.8)	70(54.3)	
SEX			
Male	33(46.4)	95(73.6)	$\chi^2 = 14.66$ Significant (P<0.05)
Female	38(53.6)	34(26.4)	
MARITAL STATUS			
Unmarried	5(7)	9(7)	$\chi^2 = 0.142$ Not significant
Married	57(80.2)	104(80.6)	
Divorced/Separated	2(2.8)	3(2.4)	
Widow/Widower	7(10)	13(10)	
RELIGION			
Hindu	44(62)	81(62.8)	$\chi^2 = 2.852$ Not significant
Islam	24(33.8)	47(36.4)	
Christian	3(4.2)	1(0.8)	

Table 2: Distribution according to type of cancer

TYPE OF CANCER	DEPRESSED GROUP n(%)	NONDEPRESSED GROUP n(%)
Head & neck	16(22.5)	42(32.5)
Lungs	13(18.3)	32(24.8)
GIT	11(15.5)	22(17)
Breast	8(11.3)	7(5.5)
Gynaecological	7(9.8)	7(5.5)
Unknown primary	8(11.3)	5(3.9)
Others	8(11.3)	14(10.8)

$\chi^2 = 10.5$; P Not significant

Table 3: Outpatient – inpatient distribution

OUTPATIENT / INPATIENT	DEPRESSED GROUP n(%)	NONDEPRESSED GROUP n(%)
Outpatient	35(49.3)	87(67.5)
Inpatient	36(50.7)	42(32.5)

$\chi^2 = 5.69$; P < 0.05(Significant)

Table 4: Distribution of VAS score

	MEAN	t-VALUE	DF	2-TAIL PROB	RESULT
DEPRESSED GROUP	5.90				
		-3.41	198	.001	Significant
NONDEPRESSED GROUP	4.60				

Student's t-test used

status and the sex of the patient. This is comparable to the high prevalence of depression reported among hospitalized cancer patients.¹⁶ The sex difference between the two groups could be explained by two reasons:

1. Females in general being at higher risk of developing depression.
2. Occurrence of breast cancer and cervical cancer in females which is more traumatic psychologically.

VAS was found to be a simple and flexible instrument that is easy to use in cancer patients. This

has also been postulated by several other authors.¹³ The pain experienced by the depressed cancer patients was greater than the nondepressed. This showed statistical significance. This finding emphasized that depressed cancer patients suffered from greater pain than the nondepressed. This finding has been replicated in earlier studies as well.⁷ In the present study, a diagnosis was made only when the mood symptoms were pervasive and persisted in the absence of pain states. This study underscores the point revealed in earlier studies that early identification and treatment of depression will lead to improvement in quality of life.¹⁷

CONCLUSION

The prevalence of Major Depressive Disorder in cancer patients attending a pain clinic was found to be 35.5%. The study supports the earlier observation that depressed cancer patients suffer from more severe pain. Female and hospitalized cancer patients are more at risk for developing depression. This should help us to focus more on the above subpopulations among cancer patients for early identification and intervention.

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Dr. Fazal Mohamed AM, the first author of this manuscript, expired on 29th December 2016. He had sent us a new draft of this paper, rewritten according to the peer review suggestions, on 4th December. Kerala Journal of Psychiatry mourns the untimely death of a great psychiatrist, academician, researcher and human being.
— Editor.