Addressing the Burden of Psychiatric Comorbidities in Cancer Patients

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ABSTRACT

BACKGROUND

Cancer is now a major cause of mortality and morbidity all over the world. A substantial proportion of patients suffer from psychological distress at one stage or the other due to cancer. Having a clear understanding of the prevalence of common mental disorders in patients with cancer is important not only from the point of planning services geared towards holistic care but also because there is evidence to indicate that untreated psychiatric comorbidities in patients with cancer have a significant impact on disability and quality of life and they tend to worsen if not treated adequately. We wanted to assess the comorbid psychiatric conditions in patient attending oncology OPD at a tertiary care hospital & teaching institute in Telangana and study the psychiatric co-morbidity in relation to socio-economic variables & clinical variables. We also wanted to evaluate as to whether awareness about the disease affects psychiatric well-being.

METHODS

A total of 60 cancer patients were assessed for psychiatric comorbidity in a tertiary health care centre in Telangana.

RESULTS

Most common psychiatric diagnosis made is MDD followed by GAD. Majority of the patients did not have anxiety. Most of them were diagnosed to have depression of varying severity. Being aware about the disease had no effect on psychological distress.

CONCLUSIONS

It is useful to assess psychiatric symptoms in cancer patients not only during diagnosis but also repeatedly during the first year of treatment. It will thereby be possible to identify patients in need of psychiatric consultation and treatment.

KEY WORDS

Comorbidities, Psychiatric, Cancer

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Page 2446

BACKGROUND

Cancer is now a major cause of mortality and morbidity all over the world. A substantial proportion of patients suffer from psychological distress at one stage or the other due to cancer. Across a variety of studies, clinically relevant distress is reported in approximately 25% of patients; however, this figure ranges from 5% to 50%.[1] During the months after diagnosis, the cancer sufferer has to come to terms with both the uncertainty of the threat of life and often toxic and disabling treatment regime. Having a clear understanding of the prevalence of common mental disorders in patients with cancer is important not only from the point of planning services geared towards holistic care but also because there is evidence to indicate that untreated psychiatric co morbidities in patients with cancer have a significant impact on disability and quality of life and they tend to worsen if not treated adequately. [2] [3] [4] In India, there is need for research in this area, because the types and extent of psychiatric symptoms in cancer patients are likely to be dependent on culture and other related variables. Systematic assessment of various factors is necessary in our Indian setup, as it will be helpful to health professionals to formulate plans for pharmacological and psychological interventions. Most observational studies have found that cancer patients with comorbidities have poorer survival than patients without comorbidities. Cohort studies with 5–7 years of follow-up have reported 1.1-5.8 fold higher mortality for breast cancer patients with any comorbidity compared to patients with no comorbidity.[5] Similarly, studies of patients with colon cancer have reported 1.2-4.8 fold higher 5 year mortality for patients with comorbidity versus without comorbidity.[6] Correspondingly, mortality in patients with lung cancer is 1.1 to 1.5 times higher for patients with comorbidity in studies with 1–5 years of follow-up.[7]

We wanted to assess the comorbid psychiatric conditions in patient attending oncology OPD at a tertiary care hospital & teaching institute in Telangana and study the psychiatric co-morbidity in relation to socio-economic variables & clinical variables. We also wanted to evaluate as to whether awareness about the disease affects psychiatric well-being.

METHODS

Before initiation of the study, approval for this study was obtained from the Institutional Ethics Committee for Research on Human Subject. Written informed consent was obtained from each subject interviewed after informing them about the nature and purpose of the study. Confidentiality of the information provided was maintained. No physically invasive procedures were carried out.

Patients
Seventy-five consecutive patients attending Oncology O.P.D at a tertiary care hospital were approached among which eight patients did not give consent & seven patients did not meet the inclusion criteria. So, sixty patients diagnosed with cancer (Maintaining the inclusion and exclusion criteria) attending the oncology department were recruited as subjects. Age, sex and socio-economic status & other demographic data were entered.

Inclusion Criteria
1. Patients with clinical diagnoses of cancer of any origin supported with positive laboratory investigations.
2. Age group between 20 to 80 years.

Exclusion Criteria
1. Patients with family history or past history of psychiatric illness not attributable to cancer.
2. Patients with cancer having other medical disorders like D.M., HTN, Thyroid or other Endocrine disorders.
3. Patients with substance dependence history other than nicotine use.
4. Patients with history of psychotic disorders.

Study Area
Oncology OPD at a Tertiary Care Hospital & Teaching Institute in Telangana.

Study Design
It is a Cross-Sectional Study conducted at a Tertiary Care Hospital during a period of 12 months from August 2015 to July 2016.

Methodology
Appropriate sample size with a definitive diagnosis of benign or malignant cancer of any origin was chosen by Non-Probability purposive sampling method from the out-patient Department of Oncology at a Tertiary Care Centre. A written informed consent was taken for participation after explaining the purpose and design of the study. Prior to consent, the participants were informed that refusal to participate would not affect the course or further management adversely. The subjects were interviewed individually. The interview included the socio-demographic data of the patient collected in a semi-structured proforma.

Tools for Assessment
1. Sociodemographic proforma (Semi-structured).
2. GHQ-28 (General Health Questionnaire- 28).
3. HAM-A (Hamilton Anxiety Rating Scale).
4. HAM-D (Hamilton Rating Scale for Depression).
5. Kuppuswamy scale for socio economic status.
6. Clinical interview aimed to arrive at a diagnosis as per ICD-10.

After taking sociodemographic details, each subject was administered with three scales, namely, General health Questionnaire (GHQ-28), Hamilton Anxiety Rating Scale (HAM-A), Hamilton Rating Scale for Depression (HAM-D). The data was analysed statistically based on which conclusions of the study were arrived at.

Data Analysis
Data of individual participant were entered in a computer-based data entry using Microsoft Excel 2010 Version and analysis was done using EPI INFO version 7. Descriptive analysis was done. Spearman's correlation coefficient was carried out to note relationship between GHQ-28 and HAM-A, HAM-D value.

RESULTS

There are 60 patients in total who participated in the study. The mean age of the sample taken is 54.72. The age groups are divided into five intervals ranging from 31 years to >70 years. There are 09 patients that is (15%) between the age group 31-40 years, 12 patients (20%) between 41-50 years, 15 patients (25%) in the age group 51 -60 years, 21 patients (35%) between 61-70 years & 03 patients (5%) who were aged more than 70 years. Out of 60 patients considered in the study, 24 were males comprising of 40% of the total study population. The study population comprised of mainly Hindus accounting to 56 patients (93%) & only 4 Muslim patients. In the study sample, the majority of the population accounting to 32 patients (53.30%) belong to Class 3 socio-economic status in accordance to Kuppuswamy Scale. Following which Class 4 population stands second, 24 patients (40%) & the least was represented by the Class 2 population, only 4 patients (6.70%). The socio-economic class of each patient has been calculated taking in consideration the educational background, per month family income &occupation as recorded in the semi-structured proforma in each patient subject. Housewives form the major chunk comprising 21 out of 60 patients (35%), followed by farmers & self-employed comprising 12 members in each accounting to 20% of the study population. Unskilled workers, comprising labor & coolie workers accounting to 09 members (15%) & lastly retired employees & others which comprises teachers, accountant etc. 03 members (05%) in each group. Administration of screening instrument revealed that 10 (16.6%) patients were having GHQ Scores equal or more than 28, meaning that these patients were having psychological strain and required further evaluation for identifiable psychiatric illness whereas, 50(83.3%) patients were having GHQ Scores less than 12 and did not require further evaluation. However, all the 60 patients were administered further scales to study the pattern of psychiatric symptoms. While assessing the awareness and the co-morbidity in the patients with cancer, it was observed that there was no significant difference in the number of the patients who were aware and those who were unaware of their diagnosis. 73% of the study population were aware of the diagnosis while. Among the patient who were aware, most of them were cases of carcinoma breast. Mean duration of Illness was 6.9±5.89 (months) & Mean duration of treatment was 4.43±3.04 months. Using the ICD- 10 for diagnosing psychiatric co morbidities in the study population, the majority of the patients i.e., n= 41 accounting to 68.3% were diagnosed to be suffering from Depression of varied severity. 12 patients (20%) were diagnosed to be suffering from Generalized Anxiety Disorder. Following this, ranked Adjustment disorder, n = 004, accounting to 6.7% of all the cases & 3 patients (5%) fulfilled the criteria for somatoform disorder. Hamilton Rating Scale for Anxiety was applied to all the patients of the study population. 46.7% patients accounting to 28 in number were not having anxiety, 28.3% i.e. 17 patients suffered from mild anxiety, followed by 18.3% accounting to 11 patients suffered from moderate anxiety, 6.7% comprising of 04 patients suffered from severe anxiety. The mean score with standard deviation of the study population is 14.17 ± 6.44. The HAM-D (Hamilton Depression Rating Scale) is designed to rate the severity of depression in

patients of the study population. It was developed in 1960 by Dr. Max Hamilton of the University of Leeds, England.

Among the 60 patients taken in the study population, majority were diagnosed to have mild symptoms of depression accounting to 38.30%, n = 23; followed by moderate symptoms accounting to 21.70%, n = 13. Severe depression was diagnosed in 13 patients (18.30%), very severe depression accounting to 10 cases (16.70%) & 3 patients (5%) did not meet the cut-off score for any degree of depression. Males suffered more from anxiety & scored higher in anxiety scale than females who scored more in depression scale. Though the difference was not clinically significant. Analysis using Spearman's correlation coefficient doesn't indicate a significant linear relationship between GHQ-28 and HAM-A, r=0.558 and p 0.1. Analysis using Spearman's correlation coefficient indicates a significant linear relationship between GHQ-28 and HAM-D value, r=0.452 and correlation is significant at the 0.01 level (p value 0.000).

Age Groups	Frequency	Percentage
31-40 Years	09	15%
41-50 Years	12	20%
51-60 Years	15	25%
61-70 Years	21	35%
>70 Years	03	5%
Total	**60**	**100%**

Table 1. Age Wise Distribution of The Study Population

Mean ± SD, 54.72 ± 11.16 years

Sex	Frequency	Percentage
Male	24	40%
Female	36	60%
Total	**60**	**100%**

Table 2. Sex Wise Distribution of The Study Population

Religion	Frequency	Percentage
Hindu	56	93.3%
Muslim	04	6.7%
Total	**60**	**100%**

Table 3. Religion Wise Distribution of The Study Population

Socio Economic Status	Frequency	Percentage
Class 2	04	6.7%
Class 3	32	53.3%
Class 4	24	40%
Total	**60**	**100%**

Table 4. Socio Economic Status of The Study Population

Occupation	Frequency	Percentage
Farmer	12	20%
Self employed	12	20%
Unskilled-worker(Labour &Coolie worker)	09	15%
Retired employee	03	5%
Others (Teacher, accountant)	03	5%
Housewife	21	35%

Table 5. Distribution of The Study Population According to Occupation

GHQ Score	Without Metastasis	With Metastasis
<28	18	32
≥28	01	09
Total	19	41

Table 6. GHQ Score Wise Distribution of The Study Population as per Stage of Cancer

x^2 = 1.54, df=1, p Value= 0.05

Psychiatric Disorder	Frequency	Percentage
Adjustment	04	6.7%
MDD	41	68.3%
GAD	12	20%
Somatoform	03	5%
Total	**60**	**100%**

Table 7. Prevalence of Psychiatric Disorder in The Study Population

Severity Score According to HAM-A	Frequency	Percentage
Mild	17	28.3%
Moderate	11	18.3%
Severe	04	6.7%
No anxiety	28	46.7%
Total	**60**	**100%**

Table 8. Severity Scores According to HAM–A

HAM-A Mean score=14.17±6.44

Severity Score According to HAM-D	Frequency	Percentage
Normal	03	5%
Mild depression	23	38.3%
Moderate depression	13	21.7%
Severe depression	11	18.3%
Very severe depression	10	16.7%
Total	**60**	**100%**

Table 9. Severity Scores According to HAM-D

HAM-D Mean score= 15.82±6.33

	Total Group	Sex		p Value
		Male N (%)	Female N (%)	
HAM-A	Mild	08 (33.3%)	09 (25%)	
	Moderate	02 (8.3%)	09 (25%)	
	Severe	03 (12.6%)	01 (2.8%)	
	No anxiety	11(45.8%)	17 (47.2%)	0.2
HAM-D	Mild	01 (4.2%)	02 (5.6%)	
	Moderate	06 (25%)	17 (47.2%)	
	Severe	08 (33.3%)	05 (13.9%)	
	Very severe	04 (16.7%)	07 (19.4%)	0.3
	No depression	05 (20.8%)	05(13.9%)	

Table 10. Association Between HAM-A & HAM-D with Sex

	Mean	Std. Deviation	Correlation Coefficient (r)	p Value
GHQ-28	21.52	6.990		
HAM-A	14.17	6.447	0.208	0.1

Table 11. Spearman's Correlation Between GHQ-28 & HAM-A

	Mean	Std. Deviation	Correlation coefficient (r)	p Value
GHQ-28	21.52	6.990		
HAM-D	15.82	6.334	0.452	**0.000***

Table 12. Spearman's Correlation Between GHQ-28 & HAM-D

DISCUSSION

Our patients' mean age was 54 years just like the study by Montazeri et al in 2008, Iran conducted on 56 patients with cancer where the mean age was 45.4 years.[8],[9] In study by Kissane DW et al in 2004 the mean age of participants suffering from breast cancer was 49.8 years.[10] It may be because the cancer is considered usually as disease of elderly age. However, Edlund and Sneed (1989), noted that the older patients were able to tolerate cancer well, than younger patients. [11] This is probably because older patients experience less existential distress and fewer difficulties than younger patients in dealing with medical situations. Limitation of this study is the presence of small number of patients of younger age group and thus makes it difficult to compare and draw a conclusion.

In present study, no significant correlation was found in prevalence rate of psychiatric disorders and the occupation of the patients as most of the patients were housewives accounting to 21 in number (35%) which is similar to that of the study conducted by Thapar et al (2015) [9]. However, Ogce F et al in 2007, found that unemployed cancer patients significantly had psychological distress than employed patients.[12] In our study, most of the patients belong to rural area and low socio-economic back ground belonging to Class 3 followed by class 4 and only 4 patients were from class 2 Socio-economic status. There are few studies that have examined the relationship between social class and psychiatric morbidity. Weisman et al (1976) reported greater vulnerability to psycho-social problems among cancer patients from lower social class which was replicated in studies done by Stark D. et al (2002) while Derogatis et al (1983) found no such relationship. [13],[14] In present study, no significant correlation was found in prevalence rate of psychiatric disorders and the marital status of the patients. It could be due to the constitution of the sample as our study had 97% of married participants. In our study, it was found that depression was more prevalent among females than in males accounting to 47.2% women suffering from moderate depression in comparison to only 25% men in the same category which is similar to a study done by Weissman and colleagues who reported the lifetime rate of major (non bipolar) depression to be 8%–17% for American women and 3.5%–8.6% for men. [15]

We found that among the 60 patients interviewed, 73% of the patients were aware of their diagnosis of cancer. But it was difficult to establish clinical significance between awareness of the illness to psychiatric morbidity in this study, although most were diagnosed to be suffering from depression and anxiety of varied severity. Knowledge about the cancer diagnosis significantly increases the chances of developing a psychiatric disorder. The findings of the study do not confirm the findings of Alexander et al. and Mishra et al. who also found that there was significant difference in the presence of the psychiatric co-morbidity among the aware and the unaware patients.[16],[17] This may be due to sampling error as the majority of the population of the study sample comprised of rural population who are unaware of the condition per se. The awareness about the cancer diagnosis and its relationship to the psychiatric morbidity has always been a subject of debate. This non-awareness on the part of the patient can be attributed to many causes notable being illiteracy, denial, decision of their family members, conservative society, stigma attached to word cancer, and financial implications. [18] Thus, there is a growing importance and need to treat these psychiatric disorders and all possible measures are to be taken for their early detection. Most of the patients who were in the early stages of cancer were considered to be unaware of their diagnosis. This goes similar to our study population scenario. Communication and providing satisfactory information about diagnosis, treatment and consent have important implications for psychological adjustment of cancer patients as reported by Montgomery et al. [19]

Further in our study, Females scored much worse in both scales of Anxiety and Depression, HAM-A, HAM-D respectively. 19 (52.8%) females versus 13 (54.2%) males suffered from varied severity of anxiety in HAM-A scale and 18 (50%) females versus 10 (41.6%) males scored Mild to moderate anxiety in HAM-A scale clearly depicting more prevalence of psychiatric comorbidity among females than males but no significant difference between gender was noted. The results of Tavoli et al in 2007 research also supported the results of this research.[20] 31 (86.1%) female and 19(79.2%) male scored for depression of varied severity. A higher level of emotional distress for females was also found in a study among gastrointestinal cancer patients (Nordin et al 2002).[21] There is a general tendency in the literature that women report more symptoms/problems than men (Ware et al, 1993).[22] The results of this study also show similar picture of

increased level of psychological distress in females more than in males, where 47.2% females suffered from moderate depression in comparison to only 25% in males as shown in Table 10. Age or gender had no influence on the occurrence of depression and anxiety on patients suffering from cancer and the results of this research are same that there are no significant gender differences in anxiety and depression among cancer patients. However, there are certain limitations in the present research. For example, the sample was considerably small to analyse the phenomena of gender differences in anxiety and depression among cancer patients. Therefore, these results cannot be generalized to the rest of the population. In view of the above discussion, it is concluded that it is imperative to carry out more studies and to follow up them longitudinally to understand the natural history of psychiatric disorders in cancer patients. Psychiatric disorders and psychosocial problems among cancer patients have been reported as a major consequence of the disease and treatment. The problems in applying a pure psychiatric approach have determined the need for structuring more defined methods, including screening for distress and emotional symptoms and a more specific psychosocial assessment, to warrant proper care to cancer patients with psychosocial problems. There is today a general agreement that screening for distress and emotional symptoms is the first important procedure to be implemented in clinical settings, while a more specific psychosocial assessment should follow, to warrant proper care to cancer patients with psychosocial problems (Grassi et al., 2015).[23]

The potential risk factors identified for development of psychiatric morbidity among cancer patients in this study should increase health care providers' awareness of which patients are more likely to develop high levels of mental distress. This is of value since early detection and treatment of psychiatric illness has been found to improve outcome.[24]

CONCLUSIONS

We therefore conclude that it is useful to include the HAM-A and HAM-D scale not only at diagnosis but repeatedly during the first year of treatment. It will thereby be possible to identify patients in need of psychiatric consultation and treatment continuously. Limitations of this study include small sample size, most of the participants being rural inhabitants and cross-sectional nature of the study.

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