Effect of Psychiatric Morbidity on Quality of Life among Gynaecologic Cancer Survivors

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ABSTRACT

Introduction: All these years with the invention of newer modalities of treatment and investigations, cancer patients' survival is improved but notthe life after it. Recently focus has shifted from curative aspect to preventive aspect and promoting healthy life. To achieve this an attempt is made to identify the factors affecting the quality of life of gynaecologic cancer survivors.

Methods: This is a cross sectional study involving 131 gynaecological cancerpatients who were evaluated using HADS and WHOQOL-BREF Questionnaire. The scores were analysed for any significant association using one-way ANOVA.

Results: Depression had negative correlation with psychological domain with p value 0.009 which is highly significant. There is a significant difference in physical domain scores between cases and borderline subjects of anxiety with p value 0.006.Women with psychiatric morbidity had physical and psychological domain affected significantly with p value 0.003 and 0.048 respectively.

Conclusions: Now, it is the time to focus on improving the quality of life of these cancer survived patients by early recognition and treatment of psychiatric illness and training them in positive coping abilities. Psychosocial care, with its goals of relieving emotional distress and promoting well-being, is central to efforts to improve the quality of patients' lives.

Keywords: Gynaecological Cancer; Quality of life; HADS; WHOQOL-BREF.

INTRODUCTION

Gynaecologic cancer is not one disease but several ones with multiple causes and it includes cervical cancer, ovarian cancer, uterine cancer, vaginal cancer and vulvar cancer. Cancer is one of the leading causes of morbidity and mortality worldwide, with approximately 14 million new cases in 2012.[1]Cervical cancer is the fourth most common cancer in women, and the seventh overall, with an estimated 528,000 new cases worldwide in 2012.In India estimated new cervical cancer cases in 2012 was 123,000 which was highest among developing countries.[2]The diagnosis of cancer affects patients and their families physically, financially and emotionally. Cancer is considered synonymous to death. Therapeutic interventions cause serious side

effects leading to mental exhaustion, which is often appeared with depressed mood, fear, sadness, tiredness, and stress regarding the body changes, sexual dysfunction, self-esteem, self-confidence and their quality of life. In addition to physical health severe stigma exacerbates these restrictions and puts considerable barriers at work.

The most common psychiatric disorder observed in cancer patients is adjustment disorder with depression, anxiety, or both. In a study including 903 cancer patients attending a hospice psychiatric disorders were identified in 48% of which 44% had adjustment disorders.[3]Depression is commonly associated with reduced quality of life, greater difficulty in managing the illness and decreased adherence to treatment.The quality of life is a subjective

feeling of well being and it can only be improved with modifications of cultural, social and environment life of that person.

Early detection and intervention of anxiety and depression can alter the prognosis and quality of life among cancer survived patients. Now focus has shifted from curative aspect to preventive aspects of cancer and promoting healthy life. A combination of pharmacotherapy and psychotherapy can be the most effective part of the comprehensive care of people diagnosed with cancer. There are literatures regarding impact of psychosocial factors on survival but very few have attempted to study its impact on quality of life. The purpose of this study is to assess the effect of psychiatric morbidity on quality of life among gynaecological cancer subjects.

METHODS

This is a cross sectional study involving systematic evaluation of psychiatric morbidity and quality of life. All the patients who visited oncology unit during study period of 1 year from March 2013 to May 2014 were considered for the study. Total of 131 subjects who fulfilled inclusion and exclusion criteria were included in the study. Patients who were >18yrs and gave consent were included in the study. Patients with gross Cognitive Deficits and too sick or distressed to participate, prior history of psychiatric illness, with major medical problems and who refused consent excluded from the study.

Direct interview method using a predefined and structured questionnaire was used on the referred inpatients to collect the necessary information. Written informed consent was obtained from the willing patients to participate in the study. Population seeking treatment here represents the community. Study was planned after literature review and discussion with psychiatrist. Predefined and structured questionnaire was used to collect socio-demographic details and MMSE (Mini Mental State Examination) scale[4] was used to rule out cognitive impairment. Patients scoring >24 were considered for study and for illiterates' cutoff was taken as 21. Selected subjects were administered Kannada version of Hospital Anxiety Depression Scale (HADS)[5] and WHO Quality of Life –BREF[6] Questionnaire. Among 150 patients reported to radiotherapy unit 12 did not give consent, five were on ART and two had CVA.

The HADS is a self-report questionnaire developed by Snaith and Zigmund in 1983.It contains 14 item rated on the 4 point Likert type scale grouped under two subscales which assess depression and anxiety with 7 questions in each section. The patient should answer with her feelings during the past 1 week. Each category yields a score of 0 to 21: 0-7 normal, 8-10 borderline, >11 probable case. A cut-off point of 8/21 for the Anxiety subscale gave a specificity of 0.78 and sensitivity of 0.9; a cut-off point of 8/21 for the Depression subscale gave a specificity of 0.79 and a sensitivity of 0.83.[7]

The World Health Organization Quality of Life – Brief Version (WHOQOL-BREF)designed to assess quality of life.The operational definition of QOL in this study is based on the four domains of the WHO-BREF instrument: Physical health; psychological; social relationships; environment scored on five point Likert scale with varying anchors.Instrument contains two questions from the Overall Quality of Life and General Health, and one question from each of the 24 facets included in the WHOQOL-100.Self-administered questionnaire (estimated 15-20 minutes) assesses past two weeks. Reliability ranged from 0.66 to 0.84. Similar alphas have been shown for test-retest reliability ranging from 0.66 to 0.87.[8]

Data was analyzed using SPSS version 20 software. Pearson's correlation test was applied. One-way analysis of variance test was done to find the significant difference between groups. Fisher's least significant difference (L.S.D) post hoc test was used to find out which group differed significantly. Probability value less than 5% was considered as statistically significant.

RESULTS

As to the age group, 18 patients (14%) were less than 35 years; 27 patients (21%), between 36 and 45 years; 56 patients (43%) between 46 and 55 years; and 30 patients (30%) above 56 years. The mean age was 49 (± 10.5) years, with a median of 50 years. One hundred and five patients (80%) were married and 20 (15%) were widow. Regarding education, 52 (40%) were illiterate, 40 (31%) had complete or incomplete primary education, 31 (24%) reported having complete or incomplete secondary education and 8 (6%) had complete or incomplete higher education. Eighty-eight subjects (67.2%) were from nuclear family, 92 belonged to lower socioeconomic strata (70.2%) and 92 (70.2%) were from the rural area. Majority belonged to Hindu religion 101 (77%). Cancer cervix (66.4%) was found in 87 subjects, 23 subjects had cancer endometrium and 100% patients knew about the cancer diagnosis what they are suffering. In this study majority (61.8%) had no associated co-morbidities like hypertension and diabetes mellitus. In this study maximum number of patients had cancer of six to twelve months' duration (46%). Radiotherapy and chemotherapy (64.9%) was found to be the mode of treatment in majority of subjects.

Table -1: Correlation of anxiety and depression with all domains

Psychiatric Morbidity	Domains of QOL							
	Physical		Psychological		Social		Environmental	
	r value	P value	r value	P value	r value	P value	r value	P value
Anxiety	0.15	0.07	0.08	0.35	0.13	0.12	0.22	0.009*
Depression	0.06	0.49	0.23	0.009*	0.12	0.15	0.10	0.23

Pearson's correlation test; *indicates significance.

Table -2: Comparison of means of QOL domains among anxiety, depression and anxiety and/or depression groups

Domains of QOL	Physical		Psychological		Social		Environmental	
	F value	P value	F value	P value	F value	P value	F value	P value
Anxiety	5.32	0.006*	2.7	0.07	0.94	0.39	2.42	0.09
Depression	0.54	0.58	50.2	0.000*	0.92	0.4	1.06	0.35
Anxiety and depression	2.45	0.12	9.75	0.002*	3.4	0.06	1.99	0.16
Psychiatric morbidity	9.13	0.003*	3.98	0.048*	1.06	0.3	0.55	0.46

Fisher's least significant difference test
* indicates significance.

Among 131 subjects 60 cases (45.8%) had definitive anxiety symptoms and 29 subjects (22.1%) had borderline symptoms and 42(32%) were normal. Among 131 subjects 71 cases (54%) had definitive symptoms and 21 subjects (16%) had borderline symptoms and 39 (29.7%) were normal. Aggregate of anxiety and depression or psychiatric morbidity includes subjects with anxiety alone, depression alone and both anxiety and depression. Borderline cases are considered as cases, this shows 118 cases (90%) and 13 subjects (10%) were normal. Combined Sixty-three cases (48%) had both anxiety and depression symptoms on HADS.

Over all environmental domain had least score with only 21% scoring 50 and above indicating financial constraints, poor health care access, difficult transport and bad home environment. Higher scores meant better quality of life but in this study only social domain scored high with 56% subjects having scores 50 and above indicating good social support and better personal relationship. Women with anxiety scoring 50 and less in physical domain were 64.28%, in psychological domain were 80%, in social domain were 58.57%, in environmental domain were 72.85%. Women with depression scoring 50 and less in physical domain were 69%, in psychological domain were 90%, in social domain were 62.96%, in environmental domain were 59%. A test of normality among the continuous variable was run to examine the distribution of the sample population and found all are normally distributed. Pearson's correlation test was run between anxiety, depression and quality of life domain scores and found that depression had negative correlation with psychological domain with p value 0.009 which is highly significant. Anxiety showed positive correlation with environmental domain. Table 1.

The distribution of physical and psychological domain scores is not same across categories of anxiety. There is a significant difference in physical domain scores between cases and borderline subjects of anxiety with p value 0.006. Borderline cases of anxiety scored least (41.17 ± 11.19) in physical domain. Depression significantly affected the psychological domain scores with p value <0.001. Normal women had better scores (65.34 ± 20.32) in psychological domain compared to borderline and depressed cases. Women with anxiety or depression were considered as women with psychiatric morbidity had physical and psychological domain affected significantly with p value 0.003 and 0.048 respectively. Women with anxiety and depression had significantly compromised psychological domain with p value 0.002. Table 2.

DISCUSSION

All women are at risk for gynaecologic cancer and its treatment related complications and this risk increases with age, parity, promiscuity, familial tendency. All depressed women had low scores in psychological domain and women with either anxiety or depression had low scores in physical as well as psychological domain compromising the overall quality of life. There are not many studies done on gynaecological cancer subjects. Anxiety and depression were significantly correlated with impaired quality of life, especially with impaired individual QOL. In a study of cancer patients on radiotherapy, there was no association between psychopathological comorbidity and the requirement for psycho-oncological support but psychopathological comorbidity had considerable influence on QOL.[9] Patients who report difficulties in accepting help had a significantly lower QOL and

measuring the individual QOL helps the psychotherapist in focusing on the patient's problems and desires.

An observational study of 178 subjects with lymphoma, renal cell carcinoma, malignant melanoma, or plasma cell dyscrasia showed subjects with anxiety disorders had impaired QOL by more than 10 points in the functional scales assessing emotional and cognitive functioning and by approximately one point on the four-point insomnia symptom scale.[10] When controlled for the potential confounds of female sex, ICD-10 diagnosis of depression, cancer diagnosis, and negative aspects of social support, insomnia remained associated with anxiety disorder. Here only anxiety was studied and it has significantly affected the psychological domain of QOL.

Another study on 568 colorectal cancer patients using both the EORTC QLQ C33 and HADS showed the association between the patients' emotional functioning scorings and their HADS scores.[11] Gender and age were included as covariates. Statistically significant negative relations were found between emotional functioning and anxiety, depression and total HADS scores, respectively, with the highest correlation coefficient for anxiety. Even here anxiety has more impact than depression on psychological domain in contrast to this study.Both HADS-A and HADS-D were significantly related to other QL dimensions and depression was a stronger predictor for reduced QL therefore, the use of an additional instrument is recommended for the assessment of depression in outpatients.

In a study on 142 hospitalized gastrointestinal cancer patients; 98 with pain and 44 without pain, the main findings were that cancer patients with pain reported significantly lower levels of role functioning, emotional functioning and global quality of life.[12] They also showed higher levels of depression than cancer patients who did not experience pain. Among patients with pain, higher scores on pain permanence and pain consistency were positively and significantly associated with higher depression. Also, higher scores on pain consistency were negatively and significantly associated with global quality of life.

The analysis of data of a study conducted on 120 advanced cancer patients, showed that the most significant associations were found between emotional functioning and HAD-T (total sum of scores), HAD-A (anxiety) and HAD-D (depression).[13] In the prediction of HAD-T, the contribution of physical, emotional, role, and social functioning along with nausea-vomiting, dyspnoea, sleep disturbance and gender is high. For anxiety, the predictor variables were physical, role, cognitive, emotional, and social functioning, followed by dyspnoea, sleep disturbance, and appetite loss, while depression was predicted by physical, role, emotional, and social functioning, the symptoms of nausea-vomiting, pain, sleep disturbance, constipation, as well as the variables of age, gender, anticancer treatment and performance status. Conclusion was psychological morbidity in this patient population was predominantly predicted by the emotional functioning dimension of EORTC QLQ-C30.

Iconomou G et.al concluded that a significant proportion of Greek cancer patients experience intense anxiety and depression prior to chemotherapy, and confirm the adverse impact of psychological morbidity on patients' QOL.[14] Standardized and timely screening of emotional distress across all phases of cancer will help to effectively identify patients whose symptoms warrant attention. Gynaecological cancer survivors were studied for the menopausal symptoms and sexual functioning and their impact on quality of life, results showed that dyspareunia negatively affected the physical, psychological and social dimension of quality of life while 42% women were sexually inactive three years after completion of radiotherapy.[15]

A prospective study of 95 women aged 21-75 years undergoing radiotherapy for gynaecologic cancer was carried out and quality of life was assessed by the WHOQOL-BREF before, at 4 months, 1 year and 3 years after radiotherapy and adverse events were evaluated.[16]The most frequent adverse events were pain (64.2%) and dyspareunia (45.9%). A significant increase in QOL scores was observed in the psychological domain, general health and overall QOL. Pain was negatively associated with the physical, psychological and social relationship domains of quality of life. There was a difference in parameters of quality of life in patients treated with radiation therapy of the pelvis in relation to other therapeutic approaches. Miller et al. reported that overall quality of life after treatment for gynaecological malignancies was good; their overall score did not differ significantly from healthy, unmatched population and emotional well-being was significantly better in cervical cancer survivors than in ovarian cancer survivors.[17]

As World Health Organisation defines health as physical, mental, social and spiritual wellbeing and not merely absence of disease, quality of life is influenced by wellbeing. All these are inter-related and need to be well balanced to have healthy life. Mental health plays a major role by influencing immune system and hormonal system of the body as well as physical and social health. Gynaecological cancer patients have impaired physical health due to cancer and its complications and treatment. Diagnosis of cancer causes mental trauma making

it difficult to cope up. Psychiatric morbidity and severity of depression, anxiety level, suicidal ideations, sexual dysfunction are common in cancer group and are more vulnerable than other non-cancer medical illnesses. Attempt was made to study the impact of this on quality of life. Results suggest that screening of all cancer patients for psychiatric morbidity and early treatment of such individuals along with training in positive coping abilities and social support can have better survival with good quality of life. A large number of women experiencing psychological distress do not seek help from a mental health professional. An Obstetrician-Gynecologist may be the only point of contact with a medical professional. In this regard, educating and training gynecologists to recognize and refer patients with psychological problems is imperative. There is a need for increased referrals, early detection and appropriate management of anxiety and depressive symptoms, which will improve the adherence to treatment and quality of life for the palliative care patients. Also there is a need to include more qualitative research along with the quantitative assessment in this population.Psychosocial care, with its goals of relieving emotional distress and promoting well-being, is central to efforts to improve the quality of patients' lives.

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