

Focusing on Psychiatric aspects of cancer: A need of the day?

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Abstract

Psychiatric aspects of cancer are increasingly being considered important. Emotional and behavioral consequences are common phenomena in patients with cancer and family members. Anxiety, depressive features, delirious behavior, pain and somatic symptoms (fatigue) are encountered during the treatment of cancer. Lifestyle changes have been considered as important aspect to reduce the risk of cancer. Managing emotional issues are integral part of palliative care of a patient with cancer. Besides this care giver's burden and professional difficulties/burnout while treating a cancer patient are also discussed in this article.

Keywords: Psychiatric aspects, Cancer, Care giver's burden, Professional burnout.

Introduction

A good mental health has always been considered as an integral component of total health of an individual along with physical and social wellbeing. Thus psychiatric aspects become important while approaching any disorder or disease. Cancer, as a disease also has psychiatric aspects associated with it. The term psycho-oncology refers to "diverse psychological, social, behavioral and psychiatric aspects related to cancer prevention, cancer illness & treatment and cancer survivorship".⁽¹⁾ In other words it is a study of psychological and psychosocial factors related to the diagnosis, management & prognosis of cancer and psychiatric disorders associated with it.⁽²⁾ A primary goal of psychosocial treatment and care is to identify/address how cancer and its treatment affect mental state and emotional well-being of cancer patients and their family members. Along with improving the mental health,⁽³⁾ psychosocial care also improves common disease-related symptoms and adverse reactions of treatment, like pain⁽⁴⁾ and fatigue.⁽⁵⁾

Historical Aspects

Over last 25 years, Psycho-oncology has been evolved as a sub-specialty of oncology. The field today includes care of cancer patients and their family members, training of staff in psychiatric & psychological management and collaborative research ranging from the behavioral aspects in preventing the cancer to the treatment of psychiatric/psychological problems associated with cancer, including the end-of-life care.⁽⁶⁾ The concept of psycho-oncology might have had its roots in twentieth century later part when the fear of word cancer got reduced and the diagnosis could be discussed with the patient. However, another stigma i.e. negative attitude attached with the mental illness, even in relation to the medical illnesses has contributed to delayed development of interest in psychological domains of cancer.⁽⁷⁾

In recent era, many studies have been done on psychiatric aspects in cancer patients (like anxiety, depression, delirium and behavioral disturbances) for early detection, assessment and treatment. Clinical practice guidelines given by the National Comprehensive Cancer Network are also available for psychiatric disorders common among cancer patients.⁽⁸⁾ Today psycho-oncology is considered as clearly defined sub-specialty of Consultation-liaison Psychiatry requiring multi-disciplinary approach. Now-a-days psycho-oncology subunit exists in almost every cancer center and many cancer hospitals have mental health professionals available for consultation.⁽⁷⁾

Psychiatric aspects of cancer

Psychiatric aspects include:

1. Psycho-social issues
2. Psychiatric disorders

a. Psycho-social issues in cancer patients

Psychological/emotional reactions to cancer: Cancer usually referred as "a killing disease" is affecting people in increasing frequency. It can impair the living of not only elders but also children and their family members. It can affect the physical, emotional, social as well as financial life of the affected. It is difficult for a person to cope with the disease at any stage whether it's a stage of diagnosis, treatment or complications. Many a time, lack of knowledge, unexpected diagnosis, poor financial stability, limited social support, severity of a disease are the deciding factors for emotional breakdown and psychiatric consultation or counselor's help becomes mandatory to help patient handle the stress in healthy and positive way.

The common psychological responses in cancer arise from knowledge about life-threatening diagnosis, prognostic uncertainty and fear of death. The emotional reactions can also be due to adverse effects of medical/surgical/radiation therapies (e.g. loss of hairs,

skin pigmentation, etc). The stigma of cancer and its sequel adds to the negative emotional reactions.⁽⁹⁾ Most common emotions are fear, anger, anxiety, feelings of helplessness and dependency. Commonly used coping styles in Indian people are turning to religion, denial, attributing everything to fate or past deeds and helplessness. However with these types of coping, resolution is noted in <40% of the cases.⁽¹⁰⁾ Though not every person with cancer encounters the losses, the different levels at which a sense of loss may be encountered are 1) **Relationship losses:** adjusting to being a person unable to function to his or her original capacity and living a life with limitations and precautions can lead to less socialization and intimacy in relationship.⁽¹¹⁾ Additionally limited employment options, restrictions in activities, emotional distance from loved ones i.e. difficulty in having conversation, blaming, guilt about past behaviors or actions and disruption of sexual life may have significant impact. 2) **Practical losses:** include loss of physical independence, mobility, hygiene, self-care, driving, declining fitness levels, economic losses, altered living conditions and financial hardship. 3) **Emotional and/or spiritual losses:** lack of self-confidence and self-belief, uncertainty, body image concerns may affect the intimate relationships and emotional issues related to career or ambitions.

Impact of diagnosis of cancer: Diagnosis of cancer produces marked emotional reaction compared to other diseases, regardless of mortality or treatment options. This includes a wide range of reactions like grief from denial, anger, bargaining, depression and acceptance. The severity and duration of emotional disturbances and the extent to which it affects patient's life seems to determine normal and abnormal emotional response.

Some people fear cancer itself, while others are afraid about cancer treatments and worry how they will get through it. Cancer patients and their relatives anticipate the suffering through which they will be passing through and that can be the greatest fear for them. Feeling of guilt is common and patients blame themselves for not paying attention or not noticing the symptoms earlier. They also worry that other members of family may also suffer the same. This can cause even more concerns for the person newly diagnosed with malignancy.

b. **Psychiatric disorders in cancer patients:** Psychiatric co- morbidity is known to be associated with chronic and life threatening medical illnesses and cancer is no exception. There is a co-existence of various psychiatric disorders in cancer patients including adjustment disorders, depression, anxiety, reduced self-esteem, etc. Patients can also suffer non-specific stress and worries which if not handled carefully can affect patient's ability to face the cancer and its complications significantly.

Short term treatment of psychiatric disorders in cancer patients is very useful in overall management and prognosis.

Adjustment disorder: This is the most common psychiatric disorder seen in cancer patients.⁽⁹⁾ Studies have found prevalence of adjustment disorder in cancer patients as high as 68%.⁽¹²⁾ Many adjustment disorder patients have depressed/anxious mood or mixed emotional disturbances.

Patients with cancer usually have some level of psychological distress that is often considered a natural reaction. Studies shown adjustment disorder as the most common psychiatric diagnosis in cancer patients followed by major depression, delirium and anxiety disorders. In Indian studies, 38 to 53% of patients with cancer were found having identifiable psychiatric disorders with adjustment disorder & depression being common. In some studies on cancer patients attending a general hospital, hospice and neurosurgery department, psychiatric disorders were identified in 48%, of which 44% had adjustment disorders. In a study carried out at cancer hospital, the psychiatric disorders were found in 53% of the patients with depressive disorder being common.^(13,14)

Major Depression: Symptoms of Depression can arise by disease process directly or by the anti-cancer drugs. Depression can be a functional response to disabilities and impairments secondary to cancer. Worthlessness, hopelessness and guilt are important differentiating symptoms between usual sadness seen in cancer patients and major depression. Studies have reported prevalence of depression ranging from 1.5% to 50%. The prevalence is also dependant on cancer site, course, prognosis, type of treatment, presence of pain & its severity. On an average, prevalence of major depression ranges from 13% to 40%. There are certain diagnostic problems to detect depression in cancer patients as depressive symptoms tend to appear in the context of the severe stress associated with any serious medical illness like cancer; secondly, many physical or vegetative symptoms of depression are similar to those because of cancer, for example, loss of appetite, decreased weight, insomnia, loss of concentration and energy. Lastly, diagnostic and classification systems have used different methods to diagnose depression to overcome the problems raised due to symptoms overlap of depression and cancer, like substitution of somatic symptoms with psychological ones, removing somatic symptoms, changing the number of criteria to be met, or trying to differentiate if the symptoms are due to the disease or due to psychological factors.^(15,16) Various risk factors that can increase the proneness of cancer patients to develop depression are young age, female gender, palliative treatment, severe somatic symptoms or persistent uncontrolled pain, advanced stage of disease and marked disability/discomfort. Other risk

factors are social isolation, recent life events or losses, pessimism and history of substance use.

In advanced cancer, prevalence estimates of major mental illness vary widely depending on the criteria used & sample size or non-DSM instruments and can result in rates up to five times those found using more rigorous criteria. One study with strict criteria found that approximately 12% of patients met the criteria for at least one major mental illness. Rates of depression were 6.8%, panic disorder 4.8%, and generalized anxiety disorder 3.2%.⁽¹⁷⁾ Caregivers were equally affected; panic disorder was the most common (8%), followed by major depressive disorder (4.5%), posttraumatic stress disorder (PTSD) (4%) and generalized anxiety disorder (3.5%). If adjustment disorder is included, the prevalence of mental illness may be as high as 50% of all patients with advanced cancer.^(12,18,19) Sub-syndromal disorders are quite prevalent, with high rates of significant anxiety symptoms, especially posttraumatic ones.⁽²⁰⁾

Recently the prevalence of depression in cancer patients has decreased due to changes in outcomes, stigma, palliative care and screening & treatment options.⁽²¹⁾ Less symptomatic disease might have greater rate and severity than symptomatically progressive one.⁽²²⁾ However, this finding has been disputed by other researchers who stated that metastasis increases the risk of depression.^(23,24) Its effect on severity of symptoms is unclear: nearing death, existential distress increases with increased physical symptom burden, not with closeness to death.⁽²⁵⁾ The prevalence of anxiety disorders might marginally increase as compared to the depressive spectrum disorders in the terminal phases of cancer.⁽¹⁸⁾ The patients with younger age and those having poor social support have a greater risk.⁽¹⁹⁾

Delirium: Delirium is also a common complication with advanced stages of cancer, occurring in 28%—44% of hospital admissions and in 90% of patients before death.⁽²⁶⁾ In the palliative care setting, hypoactive delirium is most prevalent and has a worse prognosis⁽²⁷⁾ whereas hyperactive delirium occurs in 13%—46% of the patients.⁽²⁸⁾ A reversible or treatable cause is found in less than fifty percent of the patients of advanced cancer with delirium. Mortality rate may be high in these patients.

Bipolar disorder: Prevalence of Bipolar disorder in cancer patients is same as that in general population. Antidepressants, corticosteroids, stimulants and interferon used in cancer patients can cause or exacerbate mania in bipolar disorder patients.⁽¹⁸⁾

Schizophrenia: Prevalence of schizophrenia is 1% worldwide. There is a evidence in literature for an increased overall cancer risk in patients with schizophrenia.^(25,29) This increased risk is attributable to

factors like tobacco smoking and alcohol consumption. Schizophrenic patients have impaired insight into the illness and poor memory for medical recommendations. Cancer may be diagnosed at late stages in these patients because of not paying attention or not recognizing the symptoms. In addition, psychotic patients may not verbalize pain/discomfort and may tolerate even infected lesions without complaint.⁽³⁰⁾

Substance use disorders: Substance like tobacco and alcohol increase the risk of lung, oral and head/neck cancer significantly. Prevalence of alcohol dependence in cancer patients is more than that in non-cancer patients.⁽³¹⁾ Alcoholism is associated with increased need for opioids^(31,32) and poor outcome in some cancers. The highest rate of alcohol dependence is found in head/neck cancers.⁽³³⁾

Suicidality: It has been observed that thoughts about suicide may be present in up to 17% of patients with cancer.⁽³³⁾ Compared to the prevalence in general population (16.7) adjusted rates of suicide in patients with cancer are 31.4/100,000 person-years.⁽³⁴⁾ Hopelessness has been considered as a strong contributor to suicidal ideation.⁽³⁵⁾ The presence of hallucinations and/or delusions can also be the significant risk factor for suicidal attempts.

Suicidal ideation differs from a death wish i.e. a desire for hastened death. Ten to thirty percent terminally ill patients of cancer express death wishes⁽³⁶⁾ which can be considered as a wish to relief from pain. Early reports suggest that the family members of cancer patients with severe anticipatory grief are also at risk for contingent suicide after the death of their loved one.⁽³⁷⁾ Cancer is the only non-psychiatric condition independently associated with completed suicide; and spreading of cancer to other organs i.e. metastasis further raises the risk.⁽³⁸⁾ 0.2% of all deaths in patients with cancer are due to suicide.⁽³⁹⁾

Lung cancer is associated with the highest rate of suicide, followed by stomach and oropharyngeal/laryngeal cancers.⁽³⁴⁾ The risk of suicide is highest in first five years of diagnosis and remains high for at least 15 years. A mood disorder is present in 80% of completed suicides among those with cancer.⁽⁴⁰⁾

Others

Fatigue: More than 80% of outpatients undergoing chemotherapy or radiation treatment experience fatigue. It can persist even for months or years after the cancer treatment.⁽⁴¹⁾

Treatment of fatigue includes management of anemia and other nutritional deficiencies, activating antidepressants like stimulants, Bupropion and Modafinil.⁽⁴²⁾ Non-pharmacologic interventions include exercise and psychosocial support, education and stress management programs. There is also a evidence to

support the role of yoga and stress management programs in reducing the fatigue.⁽⁴³⁾

Personality changes: The prevalence of personality disorders has been found to be similar to that in general population.⁽¹²⁾ Narcissistic, borderline and histrionic personality disorders tend to cause most difficulties in medical settings.

Chemotherapy-induced cognitive dysfunction: Possible reasons include direct cytotoxic effects on nervous system, anemia, menopause and secondary depression. Risk factors may include advanced age and dose & type of chemotherapy (high-dose and cyclophosphamide/methotrexate have more risk).

Treatment of psychiatric disorders associated with cancer

Depression: Treatment of depression is important for improving the quality of life.⁽⁴³⁾ Depression (usually secondary to hopelessness) can affect the outcome of cancer treatment. Self-neglect and poor compliance to cancer treatment may result in grave consequences leading to poor outcome and impaired quality of life. It is therefore important to intervene early if cancer patients show signs of depression.

Pharmacotherapy: Selective serotonin reuptake inhibitors, Tricyclic anti-depressants and psychosocial interventions are all evidence-based interventions for depression in cancer.^(44,45)

With respect to interactions and side effects, escitalopram and sertraline are preferred selective serotonin reuptake inhibitors (SSRI). The serotonin-nor-epinephrine reuptake inhibitors (venlafaxine and duloxetine) have some advantage in pain management. Mirtazapine is frequently used because of its side effect profile including increased appetite and a mild hypnotic effect at lower doses. Tolerability and drug interactions with tricyclic agents limit their use. Often low doses are effective.⁽¹⁸⁾

Psychostimulants like methylphenidate and dextroamphetamine are frequently used for low energy and withdrawal; the onset of effects can be within 1-2 days. Modafinil has also been used.⁽⁴⁶⁾ Various modalities are available for symptom control.⁽⁴⁷⁾ Electroconvulsive therapy can be effective but not specifically studied in oncologic settings. Space-occupying intracranial lesions are relative contraindication, although the literature suggests that safe electroconvulsive therapy is possible⁽⁴⁸⁾ even in this setting.

Psychosocial interventions: Psycho-education and relaxation training are useful. The core symptoms related to cancer need to be managed promptly without which just psychological or psycho-pharmacological treatment modalities may not be effective.⁽⁴⁹⁾

Anxiety: Evidence-based psychosocial interventions include cognitive behavior therapy, relaxation training, preventative psychosocial interventions and perhaps music therapy.⁽⁵⁰⁾

Pharmacological treatment includes benzodiazepines, shorter-acting agents such as lorazepam are used for those with hepatic impairment. Etizolam can also be used. Progressive muscle relaxation has efficacy equivalent to that of benzodiazepines in patients with good functional status.⁽⁵¹⁾ Low dose SSRIs are needed in some cases.

Delirium: Treatment includes correcting dehydration, treating infections, addressing hypoxia & metabolic derangements and discontinuing unnecessary medications such as benzodiazepines (that are independent risk factors for delirium in ICU patients).⁽⁵²⁾ Non-pharmacologic interventions⁽⁵³⁾ include frequent reorientation, cognitively stimulating activities, limiting noise stimuli, nighttime medications, establishing sleep routines and using visual & hearing aids. Small comparison trials in various medical patients' population revealed almost equal efficacy of haloperidol, olanzapine and risperidone in reducing the symptoms.^(54,55)

Schizophrenia: Early psychiatric evaluation before surgery is important, as is communication with family members. In patients with breast cancer, prolactin elevation doesn't increase the recurrence risk, so treatment with first-generation antipsychotics or risperidone can be continued if the patient is taking it previously.⁽⁵⁶⁾ Clozapine should be used with caution in patients on chemotherapeutic agents as this can cause myelo-suppression, although there are published cases of patients receiving clozapine and chemotherapy without agranulocytosis, despite expected neutropenia.⁽⁵⁷⁾ For agranulocytosis, prescribing lithium or (GSF) granulopoiesis-stimulating factors and discontinuation of bone marrow suppressing medications (carbamazepine, valproate or risperidone) may help.⁽⁵⁸⁾ Treatment of schizophrenia in cancer patients is important as it can have a significant impact on treatment adherence, compliance with the regimen and overall prognosis.

Substance use disorders

Traditional substance use treatment modalities may be difficult cancer patients with advanced disease. Some guidelines for management of substance abuse in psycho-oncology setting⁽⁵⁹⁾ focus on following aspects.

1. Involving a multi-disciplinary team
2. Setting the realistic goals of therapy (harm reduction) as relapse rate is high in setting of cancer-related stress.
3. Evaluation of co-morbid psychiatric symptoms.

4. Preventing or minimizing the withdrawal symptoms.
5. Applying appropriate pharmacologic principles (e.g. qid rather than daily dosing of Methadone for pain).
6. Relying on long acting drugs if possible
7. Doing urine toxicology screening.
8. Providing relaxation therapy and non-drug coping strategies.

Carer's burden: Family carers (FCs) are the main source of emotional support for cancer patients and play a major role in helping patients face their illness in a positive way.^(60,61) Family members may play a key role in keeping patient optimistic especially in children. A family is considered as a social system and if one member has a illness like cancer, the rest of the family is likely to suffer significantly. The challenges faced by family start right from the stage of diagnosis to continue later and can have shattering effect on even a very strong family member. It is important to communicate openly and express the feelings within the family to create a healing environment and help them gain the strength needed to deal with the crisis of cancer.

Feelings of over-responsibility, change of priorities, physical exertion during the treatment of patient, constant efforts to instill hope in patients and give them support are overwhelming to most of the carers. They may get the feelings of anger, frustration and burnout. Many blame their and patient's "doing or non-doing" of past existence for the suffering and face the events passively as they happen. Family members of cancer patients experience social, emotional as well as health-related problems along with significant burdens related to responsibilities of giving care.⁽⁶²⁾ Women face more difficulties as they have to look after the household, finances, children and many other matters along with the care of a patient. Family carers, thus should be integrated in the treatment programs.⁽⁶³⁾

Studies found that carers usually experience more depression and anxiety compared to non-caregivers.⁽⁶³⁾ They also experience feelings of fear, uncertainty, powerlessness and hopelessness.^(64,65) Some have reported the emotional reactions of family members as both challenging & positive experiences^(66,67) and described time they spent with their patients as 'quality time'. Some reported the experiences of care giving as meaningful and satisfying. In some studies carers reported the care giving process as if riding an emotional roller coaster.⁽⁶⁶⁾

Professional burnout: Doctors, along with other health workers, are believed to be at risk of a work-related distress, termed 'burnout'. It is common manifestation resulting from distress in professionals dealing with cancer patients and characterized by a loss of enthusiasm to do work, cynicism and a reduced sense of

personal accomplishment.⁽⁶⁸⁾ It is usually seen in terms of emotional exhaustion, depersonalization (treating patients and others as if they were objects) and low productivity accompanied by feelings of low achievement.⁽⁶⁹⁾ The importance of 'burnout' and psychiatric disorder lies not only in personal suffering of doctors, but in the risk they carry for impairing the delivery of health care also. It is accepted that work-related distress and more pervasive psychiatric disorders are likely to occur when the demands of working environment exceed the individual's resources to meet those demands.⁽⁷⁰⁾ Some studies showed that 28% of cancer clinicians had psychiatric disorders.⁽⁷¹⁾

Among cancer clinicians, oncologists appear to experience the most distress and low satisfaction from work-related sources. Palliative care clinicians describe the low levels of 'burnout' and stress, together with high levels of satisfaction from work. Nursing staff is also found to be significantly vulnerable for occupational stress and burnout, however hospice nurses were found to have comparatively lesser burnout than critical care nurses.⁽⁷²⁾

Central factors responsible for burnout are high workload, loss of autonomy and lack of meaning in work and inefficiency.⁽⁷³⁾ Additional factors include facing frequent situations that need life and death decisions, administering therapies having toxic effects and narrow therapeutic windows, guarded prognosis in many cancer patients and need of keeping oneself updated with scientific and treatment advances related to the disease.⁽⁷⁴⁾

Other factors like less fruitful interventions, expectations of being more empathetic, dealing with the suffering of fatal illness, dying, treatment toxicities and error, etc are overwhelming for treating clinicians. These occupational risk factors can precipitate 'burnout' and psychiatric disorder in vulnerable individuals. Family psychiatric history, childhood experiences of illness, emotional neglect and particular personality traits have all been described as causal factors for distress among doctors. Unconscious and experiential factors determine the emotional and psychological responses of a medical professional.⁽⁷⁵⁾

Conclusion

Addressing psychiatric issues is important in patients with cancer as it can have variable impact on patient's, carer's and professional's psyche. Adjustment disorder, major depression, anxiety and delirium are important and common psychiatric disorders associated with cancer. Stress associated with cancer and additional psychiatric co-morbidities may result in poor response and increase the chances of relapse of the disease. Addressing the psychological issues in family members is equally important to keep them involved in patient's care with a hope and stand with strength during the course of cancer and its consequences. Psycho-social interventions along with pharmacological

treatment are useful in managing the psychological or psychiatric manifestations of cancer. It can improve the overall quality of life in patients and their family members. Psychiatrist's role in multi-disciplinary management of cancer has been well appreciated now a days and it is necessary to screen all the patients of cancer for any psychiatric or psychological signs or symptoms in all the setting of cancer management. Specific focus and interventions are needed for carer's burden and professional burnout.

Future perspectives

With the fact of higher risk of psychiatric problems in cancer patients and significant improvement in quality of life & overall outcome after its treatment, it can be postulated that every patient diagnosed with cancer should be evaluated for psychiatric symptoms. There can be a mandatory protocol to assess all the patients with cancer periodically for emergence of psychiatric symptoms throughout the course of the disease. Psychiatric services should be the integral part of any cancer institute with Psychiatrist on panel. More research is required to reconfirm how the management of psychiatric disorders in cancer patients can modify the prognosis and improve their quality of life. Addressing carer's psychological, social, financial and moral issues with their preparation to accept the fact and helping them to cope with the stress can be of significant importance and has to be incorporated in treatment plan. Anti-neoplastic drugs should be chosen (if possible) considering the psychiatric profile of the patients. Regular counseling, stress management and strengthening the coping of professionals working with the cancer patients is also a crucial intervention. It is also recommended that mental health issues and its management should be incorporated in the curriculum and training of medical professionals to meet the demands of cancer and palliative care patients.

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