'I'm sorry but you've got cancer': the role of psycho-oncology

Patients struggling with cancer undergo significant psychological distress and have high rates of psychiatric morbidity. This article considers the psychological journey of a cancer patient. It looks at both the short-term and the long-term impact of cancer on the psychological health of patients.

The incidence of cancer in the UK is approximately 300 000 per annum (Cancer Research UK, 2008). Cancer is a stigmatizing illness; it is a frightening diagnosis and is associated with the fear of dying and feeling written off. Cancer with mental illness can be doubly stigmatizing as it may lead to a loss of faith and control over not only one's body but also one's mind.

Psycho-oncology is a recognized sub-speciality of oncology and liaison psychiatry which deals with the link between cancer and mental illness. It looks at the role that psychological factors play in the aetiology of cancer and also the management of mental illness and psychological distress in patients with cancer. This article focuses on the latter and deals with psychiatric morbidity in this patient population and the psychological impact of dealing with cancer.

The diagnosis

Most patients go through three phases in response to a diagnosis of cancer: initial shock, denial or acute turmoil, and adaptation. In the turmoil phase the patient may experience symptoms of anxiety, depression, anorexia and insomnia. Existential concerns can come to the fore during this period. Patients often ask 'why me?' and they might question their relationship with God.

Depending on the type of cancer they have patients can feel a sense of guilt about their own contribution to its aetiology. They sometimes attribute it to personal flaws and their inability to handle stress. They might blame themselves for not taking action early on in the illness or engaging with screening measures.

Denial is a common way of coping with cancer. Some patients deny more than others, for example, male lung cancer patients and older patients show higher levels of denial. Shortly after diagnosis, patients with a lower level of education show greater levels of denial than more educated patients (Vos et al, 2008). A certain level of denial is a normal and healthy phenomenon, but whether the level of denial is related to adaptive or maladaptive coping needs to be investigated.

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Five coping styles have been described in patients dealing with a life-threatening illness: fighting spirit, helplessness and hopelessness, anxious pre-occupation, fatalism and positive avoidance. Not all patients go through the same phases or in the same order but individual coping styles and pre-morbid personality are significant predictors of mood and distress.

Challenges in treatment

The treatment of cancer is often long, unpleasant and unpredictable. It impacts on the body, the mind and also has an effect on the social circumstances of the patient. For example, cancer of the prostate can lead to sexual complications and urinary incontinence, a colostomy can make the patient feel unclean and fears about this can restrict the patient's social life. The mutilating effects of surgery such as mastectomy can affect the self-image; there is a strong association between disfigurement and depression (Katz et al, 2004).

Nausea and vomiting as a result of chemotherapy can be preceded by anxiety. Patients may experience a conditioned response to the nausea and vomiting associated with the first few courses of treatment which can develop into a phobia.

Infertility can be a long-term effect of cancer especially if the patient is young. This can be secondary to the chemotherapy or a result of the cancer itself. The first-birth rates (primary infertility) among persons with cancer can be reduced by 25% when compared with the general population (Syse et al, 2007).

Hair loss can make many men and women acutely aware of their vulnerability and increase their visibility as a 'cancer patient'. It consistently ranks among the most troublesome side effects of cancer treatment (Lemieux et al, 2007).

During the course of treatment patients have to undergo regular blood tests and scans, the outcome of which will tell them about their response to treatment and help decide further treatments. Each appointment with the doctor carries with it anxiety and uncertainty about their illness.

The experience of having a bone marrow transplant can be stressful. The patient receives treatment in isolation to prevent infections. There is also a high risk of graft *vs* host disease and infections leading to significant distress. The rate of post-traumatic stress disorder in patients undergoing bone marrow transplant is around 5% (Widows et al, 2000) and the development of post-traumatic stress disorder symptoms is associated with the degree of life threat experienced by the patient.

Psychiatric morbidity

The commonest psychiatric illness in patients with cancer is adjustment disorder, which can present as depression or anxiety. Pain, fatigue and problems with self image are other significant concerns.

Psychiatric morbidity has a tri-modal distribution in these patients. The three peaks are during initial diagnosis and treatment, recurrence and advanced disease. Psychiatric morbidity increases with advanced stages of the illness. Symptoms of anxiety and depression tend to recur or become exacerbated during various transitional points in the illness. The majority of psychiatric morbidity is related to the cancer itself; the incidence of pre-existing psychiatric disorders, although present, is low.

Depression is not an uncommon symptom in cancer. A systematic review found a median prevalence of 'definite depression' of 29%, (interquartile range 19.50–34.25%) (Hotopf et al, 2002). A more recent study (Burgess et al, 2005) showed nearly 50% of women with early breast cancer had depression, anxiety or both in the year after diagnosis, 25% in the second, third, and fourth years, and 15% in the fifth year. Point prevalence was 33% at diagnosis, falling to 15% after 1 year, and 45% of those with recurrence experienced depression, anxiety or both within 3 months of diagnosis.

The risk factors for depression are the same as in other patient sub-groups and include the lack of an intimate confiding relationship, younger age and severely stressful non-cancer life experiences.

It is harder to diagnose depression in patients with cancer since somatic symptoms are similar to those of cancer. The main focus during assessment therefore needs to be on cognitive symptoms. The key differentiating features are pervasive anhedonia (lack of motivation), guilt or feelings of worthlessness, decreased reactivity of affect and sustained low mood. A patient with depression is more likely to feel fatigued and lack motivation early in the morning whereas a patient with cancer without depression is more likely to feel fatigued later in the day.

Certain tumours are more likely to predispose to depression than others, for example, depression more commonly precedes pancreatic cancer than it does other gastrointestinal malignancies (Carney et al, 2003) (*Table 1*). Depression is also more likely to occur in patients with carcinoma of lung and carcinoma of the head and neck. With brain tumours the rates of a major depressive disorder can be as high as 28% using the Diagnostic and Statistical Manual of Mental Disorders criteria. Key predictors of depression in brain tumours included a frontal tumour, combined sadness and lack of motivation symptoms, and a family psychiatric history (Wellisch et al, 2002).

Harris and Barraclough (1998) found an increased risk of suicide in cancer. The risk is elevated in the period immediately after diagnosis and in advanced rapidly progressing disease. Suicide rates are low in patients with carcinoma of breast and female genital cancers but this is possibly confounded by decreased suicide rates in women overall (*Table 2*). Suicide can be seen as a way of asserting control. In studies of the wish for hastened death in patients with advanced cancer the presence of depression was the greatest predictor of wanting to die early, exceeding the presence of pain as a factor. In Scandinavia, the highest incidence of suicide was found in patients who were told they had no further treatment options and who lost contact with their physicians, underscoring the need for continued support (Bolund, 1985).

Anxiety is a significant presentation in these patients. The incidence of anxiety can be as high as 70%. The initial diagnosis can be a very difficult time for the patient and long-term concerns about the prognosis and the outcome of treatment are maintaining factors of anxiety. Levels of anxiety will depend on the patient's response to treatment but more importantly on his/her pre-morbid personality and his/her prognosis. The key causes of anxiety can be divided into: situational, disease-related, treatment-related and exacerbation of a pre-existing anxiety disorder.

Table 1. Organic causes of depression in cancer

Drugs	Steroids
	Vincristine
	L-asparginase
Tumours	Carcinoid tumours
	Carcinoma of head and neck
	Cerebral cancers
	Pancreatic cancer
Others	Radiotherapy-induced fatigue
	Paraneoplastic syndrome
	Limbic encephalopathy syndrome

Table 2. Risk factors for suicide in cancer

Depression
Prior history of suicide attempts
Pre-existing psychopathology
Pain
Cancer of the head and neck
Advanced illness
Poor prognosis

Delirium is suffered by 44% of inpatients with cancer and 62% of patients with cancer before death. The aetiology is known in less than 50% of patients. It is a significant problem in end-of-life care when patients present with multi-organ failure. Steroids, opioids and ciclosporin are other common causes of delirium in patients with cancer. The treatment of delirium is the same as that of patients with delirium with non-malignant causes.

Treatments

Antidepressants work in depression with cancer (Massie and Holland, 1990). When treating start low and go slow. The choice of antidepressant depends on the side-effect profile of the medication. Trazodone and mirtazapine cause sedation, mirtazapine has the added advantage that it is available in an oro-dispersible form making it very useful in patients who cannot swallow. Venlafaxine has an alerting effect and is least protein bound and is therefore least likely to displace other medications.

Patients with only weeks to live might benefit from psychostimulant medication. Psychostimulants can be used for depression and fatigue and have a rapid onset of action. There is evidence for their use in the short-term management of fatigue in patients with human immunodeficiency virus infection. In one study bupropion sustained release improved symptomatic fatigue, depression and quality of life in cancer patients, and caregiver quality of life (Moss et al, 2006).

Pain

Pain is a significant problem for patients with cancer. The pain can be secondary to the cancer or can be a side effect of treatment. One study showed that patients who were depressed had more pain than non-depressed patients (Ciaramella and Poli, 2001). Pain and depression are highly prevalent in cancer patients, but there have been no appropriately designed studies to examine a causal relationship. Although associations exist, there is not sufficient evidence to support an interdependent relationship. The incidence of pain is greater in tumours of the bone, and ear, nose and throat cancers.

Pain and its management is a key part of cancer treatment. Pain management starts with a thorough assessment, and a detailed history of the pain is essential. It is important to build a therapeutic relationship with the patient and set realistic goals. Psychiatric co-morbidity must be treated as depression impacts on the perception of pain.

Around 80% of pain should be treatable with simple analgesics. There is evidence for the use of tricyclic antidepressants and duloxetine in the management of pain (Wernicke et al, 2006) and associated depression when the pain does not respond to analgesics and opiates.

Challenges post-treatment

Patients with cancer face significant challenges in the period after treatment. In one study survivors of childhood cancer in the Netherlands had achieved fewer milestones than their peers with respect to autonomy, social and psychosexual development (Stam et al, 2005). Return to work after cancer can be difficult. A non-supportive work environment, manual labour, and having head and neck cancer are negatively associated with return to work (Spelten et al, 2002).

Since the outcome of most cancers is difficult to predict patients live in fear of recurrence of their illness, known as the Damocles syndrome (Koocher and O'Malley, 1981). The fear of recurrence is the commonest fear faced by patients with cancer, and can lead to the patient seeing life as fragile and unpredictable. A relapse brings with it a renewed uncertainty for the future.

More than half of former breast cancer patients indicated moderate to severe concerns about disease recurrence. The levels of worry were independent of the time since diagnosis (Van den Beuken-van Everdingen et al, 2008). The recurrence, if and when it occurs, can be perceived by the patient as a traumatic event. It is important to identify these fears since they are associated with mental and somatic problems (Skaali et al, 2009).

Following remission patients become more vigilant for any signs of a recurrence. Any minor changes in bodily function can trigger fears of a relapse. Patients do not always talk about their fears of recurrence. Patients find recurrence more distressing than the initial diagnosis since it reduces their hope of complete remission.

Cancer can be seen as a psychosocial transition with potential for both positive and negative outcomes. The challenge of a cancer diagnosis may eventually lead to the experience of positive psychological changes, also referred to as post-traumatic growth. Individuals often rethink the meaning and purpose of their lives and re-examine their priorities. The growth is experiential not merely intellectual.

Studies have shown a pattern of greater post-traumatic growth, which can be divided into five subscales: improved personal relationships, greater appreciation for life, positive influence on others, personal inner strength and changes in life philosophy (Bride et al, 2008).

Carers

On average relatives appraise the cancer experience as more stressful than surviving patients. In a study (Cohen and Pollack, 2005) looking at patients with breast cancer the psychological distress of mothers who had breast cancer and their daughters was highly correlated. Mothers experienced a higher level of distress than daughters. Daughters' distress was also related to their subjective care-giving burden and the frequency of meetings with mothers.

Sustaining recovery depends on support that patients receive from their family. The role of relationships and support of family is therefore important in the management of these patients. Information, support and bereavement care are the three important needs of carers. Support for carers should be integral to planning cancer services.

Palliative care

End-of-life care is an essential part of planning care for patients with terminal cancer. This is delivered by palliative care teams and hospices in the NHS and the voluntary sector. The hospice movement started in the 1960s and there are currently over 200 hospices in the UK, the majority of which are voluntary.

Involvement of the hospice starts months or years before death. Their role is to bring troublesome symptoms under control when disease is no longer responsive to treatment. The concept of quality of life as an important and measurable end point is the key aspect of this approach.

The emotional and spiritual aspects of treatment receive greater emphasis. Issues of capacity and advance directives become important considerations as the patient nears the end of his/her life. Interestingly, contrary to popular belief 50% of episodes of inpatient hospice admission end in discharge rather than death.

Major depression is not an inevitable part of the dying process in patients with terminal cancer and closeness to death is not associated with higher rates of mental disorders (Lichtenthal et al, 2008).

Conclusions

Coming to terms with and fighting cancer is a very difficult experience, involving psychological challenges at each stage. The psychological impact does not end with treatment, and often patients realize the mental trauma and impact of the cancer after treatment has ended. During cancer treatment patients are focussed on dealing with their physical health and often find it difficult to acknowledge the mental challenges they face.

There are high rates of depression and anxiety in these patients. There is a need for specialist psychiatric input into oncology services nationally to help with the screening and treatment of mental illness in these patients. They also require psychological support through counselling and psychotherapy since their clinicians often do not have the skills to identify and deal with these issues.

Care for patients with cancer should follow a holistic approach. It should include the biological, psychological, social and spiritual aspects of their treatment. Carers sometime suffer more than the patient and it is therefore important that any approach incorporates support for carers. **BJHM**

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KEY POINTS

- The prevalence of psychiatric morbidity in patients with cancer is high.
- Diagnosis can be difficult because of the overlap with somatic symptoms.
- The psychological challenges of cancer continue well after remission.
- Depression in not an inevitable part of the dying process.
- There is a need to improve screening for mental illness in patients with cancer.