INTRODUCTION

Cancer patients like other chronic disease patients are at increased risk of psychological distress and manifest clinically significant depressive and anxiety-related disorders compared with the general population. Depression from cancer is worse when faced alone. The ranks of the depressed patients grow from a general population baseline of 3%, to 6% among cancer outpatients, and to 12% among cancer inpatients. In addition to the stress of coping with cancer and deteriorating health and the prospect of enduring yet another round of medical tests and procedures for treatment, most patients and families are concerned with added side effects of chemotherapies. All these concerns sometimes result in lack of compliance or refusal of treatment. If we can reduce these side effects and make treatment comfortable, the patient can get the benefit of successes in chemotherapy treatment.

Communication is the best means to solve these issues whether it is between medical staff and patient or patient to patient suffering from the same disease. Many studies conducted on these aspects in different parts of the world have reported different outcome. This study was conducted to determine the effects of group psychotherapy in a group of oncology patients receiving chemotherapy.

PATIENTS AND METHODS

This study was conducted in the department of Oncology, King Fahad Hospital, Madina Munawra, KSA. It started in January 2002 and completed in June 2005. Those patients who were treated with chemotherapy for advanced stage (IIIB and IV) breast and lung cancer were selected with ECOG performance status of 0 or 1. All patients received anti-emetic medications half an hour before chemotherapy. All those patients in this category who completed fist line chemotherapy with 6 cycles were included. Fifty were subjected to group discussions with other patients, family members and medical staff. This was labeled group A. The other 50 were not included in group discussion and were labeled group B. Both the group received similar standard chemotherapy and pre-medication for vomiting as per their disease and chemotherapy schedule. Breast and lung cancer patients were 29 and 21 in each arm respectively. At the end of the discharge, grade 2 and above of vomiting, according to common terminology criteria for adverse events (CTCAE) was counted for all patients in both the arms A and B, over full length of treatment for 6 cycles, and then were compared statistically.

RESULTS: Mean with standard deviation for adverse event (vomiting) in group A and B was 6.2 ± 2.6 and 13.4 ± 3.8 respectively per cycle of treatment. It was observed that group psychotherapy had statistically significant effect (p-value <0.05) on the management of vomiting.

CONCLUSION: Group psychotherapy can be used to reduce the incidence of vomiting in advanced breast and lung cancer patients treated with chemotherapy.

each arm respectively. At the end of the discharge, grade 2 and above of vomiting (2 or more than 2 vomits per day), according to common terminology criteria for adverse events (CTCAE), till completion of treatment, overall 6 cycles were compared in both the groups. All such events (vomiting grade 2 CTCAE) were counted on both the arms A and B and means with standard deviations over each cycles were compared statistically.

Group discussions were conducted by oncology resident in the presence of a social worker under the supervision of the oncologist and neurophysician with patients of group A on different aspects of cancer treatment and its side effects, particularly nausea and vomiting, taking precaution not to induce thinking, which might increase their anxiety or initiate any threat phobia or denial for treatment. Only those things were discussed which primarily concerned the disease aspect. Group members were taught as how to detoxify the fears of cancer, its treatment and side effects of treatment.

Each session lasted two hours. In every session either oncologist or neurophysician participated, or difficult issues were dealt with by them during these discussions.

The format of discussion was such that initial half hour talk was given by the resident oncology and social worker. Next half hour was continued with further details and inviting participation from the group A attendees, by consultant oncologist or neurophysician. Last one hour was an open discussion between resident, social worker, new patients and old patients with similar diseases, allowing any question and sharing each other’s experience. Patients were allowed to have any later discussion independently. They were encouraged to have any such question or query, during their stay in the hospital. Family members of group A were also encouraged to participate in the group discussions of group A, but it was not mandatory. The medical team used plain and simple language in speaking with patients, and answered questions up front. All these patients in group A actively participated, discussed and shared their feelings with each other and with medical staff.

The aims and objectives of group psychotherapy / discussion were conveyed to the patient and family at the time of admission in the outdoor by the consultant oncologist to deal with any major objectionable question or query from the family by the senior staff, which may have been difficult for the resident if this was not done initially, and to explain the need or benefit for this group discussion there and then by the consultant, and to decide who will be placed in group A or B at the time of the admission. The old patients were also encouraged to join and participate in such discussions on the day of chemotherapy for group A.

After the initial phase of recruitment, when this study was on the way, all those who were the subjects of the group A initially, became companions and source of information and part of group psychotherapy discussion for the new recruits of the group A. Those patients or families who declined the participation on the first visit were not included in group A. They were either taken in to group B or were excluded. Every patient from group A had at least two sessions depending on their stay in the hospital. First session was on the day of admission when the patients were admitted in the ward. Second session was after completion of all investigations when patients were ready for chemotherapy, usually a few hours before. The content of discussion and way of handling the issues were pre-planned after necessary discussion with the psychologist / psychiatrist. Those with less than two sessions were also not included in group A.

Group B patients were almost similar in all other aspects as far as gender, age, disease or treatment was concerned. The anticipated side effects were managed prophylactically by appropriate drugs (pre-medication) before the start of chemotherapy in all patients as a standard routine. Group A patients were almost similar in all other aspects as far as gender, age, disease or treatment was concerned. The anticipated side effects were managed prophylactically by appropriate drugs (pre-medication) before the start of chemotherapy in all patients as a standard routine. 

Number of vomiting / grade of vomiting during their stay in the hospital as per CTCAE grade were recorded. At the end of the discharge, in all these patients, the number of events (grade of vomiting 2 and above) was calculated collectively in both the groups. Similarly, mean stay in the hospital in days in both the groups was also calculated. The difference between the two groups was analyzed by application of student’s “t” test.

RESULTS

A total of one hundred cancer patients were selected. Out of these, 32 were males and 68 females. Mean age for group A and group B was 55 ± 14.2 years and 57 ± 11.4 years respectively. All patients treated for different types of cancer with respective chemotherapy are shown in Table I. Total adverse events (vomiting grade 2 and above of CTCAE criteria) among the interventional group A per cycles was 6.2 ± 2.6. From the non-interventional group B, it was 13.4 ± 3.8 per cycle. It was observed that group psychotherapy had statistically significant effect on the management of adverse side effects (vomiting) of chemotherapy. The p-value was <0.05 (Table II).

DISCUSSION

Recognized barriers to the use of cancer treatment include lack of knowledge, lack of financial resources, and cultural norms. Side effects of the treatment is the most common hurdle in successful cancer treatment. Non-specific therapies like group therapy may be useful in short and long-term cancer management in many patients. People from different sects of life exhibit different behavior. In a study, it was seen that both men and women from rural areas had greater confidence in their abilities to cope with their healing and recovery from cancer following participation in group psychotherapy

Table I Distribution of patients according to disease, treatment given and sex in both groups.

<table>
<thead>
<tr>
<th>Cancer site</th>
<th>Treatment given</th>
<th>Group A (n = 50)</th>
<th>Group B (n = 50)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lungs (n=42)</td>
<td>VP-16 + Cisplatin</td>
<td>16 Male, 5 Female</td>
<td>16 Male, 5 Female</td>
</tr>
<tr>
<td>Breast (n=58)</td>
<td>FEC</td>
<td>0 Male, 29 Female</td>
<td>0 Male, 29 Female</td>
</tr>
<tr>
<td>total (n=100)</td>
<td></td>
<td>16 Male, 34 Female</td>
<td>16 Male, 34 Female</td>
</tr>
</tbody>
</table>

Table II: Comparison of grade 2 and above with standard deviation among the group psychotherapy group (A) with no group psychotherapy(B).

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Group A mean ± SD</th>
<th>Group B mean ± SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 2 and above vomiting according to CTCAE</td>
<td>6.2 ± 2.7</td>
<td>13.4 ± 3.8</td>
</tr>
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</table>

*Statistically significant (p<0.05)
Impact of group psychotherapy in chemotherapy induced vomiting for treatment of advanced breast and lungs cancer

Psycho-immunology has been credited with using the mind as a way to alter immunity. But the problem with this concept is that many of the current psycho-immunology techniques in use are aimed at alleviating stress effects on the immune system rather than a direct augmentation of immunity by the brain. Group psychotherapy effecting perception might allow us to follow how effectively the brain is performing in altering immunity.

Group psychotherapy teaches patients to face feelings directly and restructuring these feelings in a supportive social context. Emotion is valued as a source of closeness, and not as a cause of isolation. Patients are taught that cancer is not deserved and that it's acceptable not to put on a false happy face. While individuals are customarily conditioned to treat crying as if they are bleeding, this should be stopped immediately. Studies have shown that those who suppress suffer much higher rates of depression than those who express it.

Many studies conducted to find out the benefit of group psychotherapy alone have shown varied positive results but only in some, this benefit was statistically significant. As many as 80% of breast cancer patients report significant distress during initial treatment. The literature on psychotherapeutic treatment of cancer patients provide uniform evidence for an improvement in mood, coping and adjustment as a result of group therapy. Findings in a study indicated that emotional expression during group psychotherapy may render breast cancer patients more comfortable in expressing their emotional responses. Group psychotherapy for women with early stage breast cancer, although the benefit was there but the training and experience of the therapist was especially critical to an efficacious outcome. This was the reason that in every group therapy session, senior staff members were present in our study, whereas group therapy was not found to prolong survival in women with early stage breast cancer. Supportive expressive group therapy in patients with metastatic breast cancer does not appear to influence health related quality of life, as measured by the European Organization for Research and Treatment of Cancer Quality of Life assessment. Similarly, supportive expressive group therapy does not prolong survival in women with metastatic breast cancer. However, it improves mood and the perception of pain, particularly, in women who are initially more distressed. The results of one study suggested that a short-term psychosocial group intervention produced significant long-term improvement in the quality of life of Japanese patients with primary breast cancer.

In a study on patients with malignant melanoma psycho-educational group intervention has shown to decrease psychological distress and enhance effective coping. Educational programs significantly increased the likelihood of getting a mammogram when compared to a control group that received no group therapy. In one study, body's psycho-physiological reactions to tumor invasion was studied. Evidence of the links between social support, stress, emotional state, and immune and endocrine function was described. In another study, support and imagery in group therapy reduced the stress and improved the quality of life. Unfortunately, routine use of psychological therapies as given in one study had no significant effect on the patient's quality of life and psychological status.

A significant component of the lifestyle intervention is involvement in the peer community. In a study, it was found that men generally expressed positive attitudes about the lifestyle changes, and felt that their participation in the program contributed to feelings of hope, optimism, and fighting spirit. Additionally, participants frequently mentioned increased comfort with emotional expression. Family oriented interventions including individual, couple, and family therapy, and psycho-educational groups has been successful and recommendation has been made in some studies.

While numerous individual and group psychosocial treatment models exist, we focused on the group supportive expressive treatment model for our patients. This model is based upon building social bonds, allowing for the discussion of common problems. Patients often choose to overcome the social isolation of illness by helping others to feel better through sharing their own experiences. This model encourages emotional expression, rather than attempting to suppress or channel it. The outcome of our study was a statistically significant difference. This most encouraging effect of group therapy, although in line with some such studies mentioned above, could be because in this culture there are barriers in communication about the disease information, and these barriers thus create uncertainty, which can lead to augmentation of side effects. The situation in medically educated communities, where patients have an easy access to disease information directly with medical community or through internet, can be a little different from these cases because they already have a high baseline knowledge and possibility of getting so much benefit, which were seen in these cases, would not be there, as the knowledge provided by these therapies would be making less difference in them as compared to our cases.

Despite a substantial body of literature on psychological interventions for cancer patients, there is a deficiency of psycho-oncology units where such interventions can be conducted. Since cancers are chronic diseases, quality of life is important to patients; hence every effort should be made to provide facilities for evidence-based psychological interventions. One psychological factor shown to have a significant detrimental effect on both quality of life and survival of cancer patients is the coping response of helplessness/hopelessness. This response can be altered by psychotherapy.

All patients can not afford expensive and fancy medicines which can omit the side effects, so this cheap support which is even without the side effects of pharmacotherapy should be
used. In another study, it was shown that a psychosocial intervention can reduce direct healthcare billings in a sample of patients with cancer. Importantly, these findings help to justify the routine availability of such programs in cancer treatment facilities worldwide. Evaluation of the effectiveness of these strategies is important to determine which patients are knowledgeable in such critical areas and how can they be best benefited.

CONCLUSION

In our study, the effect of group therapy showed a statistically significant difference with a p-value of <0.05 as shown in Table II. Group therapy is recommended during the stay of treatment in the hospital to get such a benefit toward side effects of treatment, cost of additional treatment and extra stay in the hospital. To tap the benefit from group psychotherapy, all oncology centres should consider having such programs, which can be less expensive with best benefit for the patients and overall benefit in changing the concepts of people about the down side of oncology. Further elaborative and extensive studies are required to answer these questions with more accuracy.

REFERENCES