The Influence of Palliative Care on the Level of Anxiety and Depression in Lung Cancer Patients

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Objective. Starting from the fact that Palliative Care Centre has been in the existence within the University Clinical Centre Tuzla for a few years, and from the positive daily experience while working with lung cancer patients and relatively small number of research in the area this work has an aim to establish the influence of palliative care on the level of anxiety and depression at lung cancer patients. Subjects and Methods. The examined group consecutively chosen consisted of 40 patients who were given symptomatic therapy and who were hospitalized at the Palliative Care Department of the University Clinical Centre Tuzla. The controlled group was consisted of 40 patients who were treated at home after the diagnosed lung cancer by the Tuzla’s Heath Centre infirmary in charge. Depression and anxiety were estimated by Zung self-rating scale. Two-level testing was conducted: first of all the initial testing, immediately after the given diagnosis, and then two-week-later testing. The significance of the established differences was tested by the students’ t-test, while the difference was recognised as significant for the level of probability starting with p < 0.05. Results. The average score for depression outcome at the beginning of the treatment of the hospitalized patients at the Palliative Care Department was 62.68±5.88, while the outpatients had a score of 48.65±4.90. After two-month treatment at the Palliative Care Department the depression was reduced to 48.73±4.11 (p<0.001), while it was 47.33±5.37 (p=0.004) of the outpatients. At the beginning the hospitalized patients had an average score of anxiety of 51.55±2.88, while two weeks later it was 44.53±2.98 (p<0.0001). The controlled group of outpatients’ average score of anxiety at the beginning was 44.43±2.63, while two weeks later it was 46.15±2.62 (p<0.0001). Conclusion. The treatment of the lung cancer patients at the Palliative Care Centre significantly reduced the level of their anxiety and depression and it represents a better way of treatment than treatment at home that outpatients received. Key words: Lung cancer, Palliative Care Centre, Anxiety, Depression.

1. INTRODUCTION

The term ‘palliative’ is of Latin origin and it is derived from the word pallium which means an overcoat, cloak, cape, or veil. And indeed, when palliative care is in question the symptoms are ‘cloaked’ and ‘covered’ by various treatments with the aim of improving patients’ comfort or removing discomfort, the way cloak keeps snow/rain or cold away (1). The word ‘hospice’ is often used in connection to the palliative care and although it is used with multiple meaning (sometimes it is a building – ‘St. Christopher’s Hospice, sometimes it represents a group of workers – ‘Hospice team’, and sometimes it is a program – ‘Hospice’s service’) hospice is first of all an elaboration of a philosophy which could be summarised according to South Australian Association for Hospice Care as: ‘Hospice care accepts death as a normal process and understands it as the last phase of the dying person. It accepts death as a special time for integration and reconciliation. Furthermore, hospice care accepts the need of dying patients to live fully, proudly, and comfortably till they die; it does not hurry or postpone death. Finally, it ensures the support to the grieving family and friends (2).

It is interesting that palliative care and hospice are mainly connected to the malignancies (as in public laic opinion, but also in health workers’ opinion in general, and in professional and scientific literature) although many other (non-malignant) internist or neurologist patients, and that the treatment leads to the general state improvement (4). Salvo and his fellow workers (5) shared the information that 55% had at least moderate symptoms of depression, and 65% had at least moderate anxiety symptoms out of 1439 patients with the advanced stage cancer patients who were treated with radiotherapy. According to the Arrieta and fellow workers’ research (6) anxiety and depression are present at one third of the patients recently diagnosed with lung cancer, and the research also shows that depression and anxiety reduce the quality of such patients’ lives.

This research is an attempt to establish the influence of palliative care
on the level of anxiety and depression of lung cancer patients starting with the fact that Palliative Care Centre has been in the existence within the University Clinical Centre Tuzla for a few years, and from the positive daily experience while working with lung cancer patients who have used this service, plus relatively small number of research in this area.

2. EXAMINEES AND THE METHODS

Prospective study was undertaken at Palliative Care Centre of the Clinic for Lung Diseases within the University Clinical Centre Tuzla. The examined group consecutively chosen was consisted of 40 patients who were treated at the Palliative Care Centre after being diagnosed with advanced lung cancer. The controlled group was consisted of the same number of patients of similar age and gender distribution, who were after the diagnosed lung cancer treated at home by the doctor of Tuzla’s Heath Centre in charge.

Depression and anxiety were estimated by Zung self-rating scale, which can provide the possibility of quantification on: normal test result (up to 49 points), minimal to moderate anxiety/depression (50-59 points), clear anxiety/depression (60-69 points), and severe anxiety/depression (70 points and more) (7-8).

Two-level testing was conducted: first of all the initial testing, immediately after the given diagnosis, and then two-week-later testing. The significance of the established differences was tested by the students’ t-test, while the difference was recognised as significant for the level of probability starting with p < 0.05.

3. RESULTS

Feeling of depression and anxiety within the examined and controlled group before and after the treatment was measured. As we deal with the same patients so called paired t-test was applied to the dependent samples.

Anxiety

During the first testing of the hospitalised patients the average score at the anxiety scale was 51.55 ± 2.88, while after two weeks of palliative treatment the score was 44.53 ± 2.98, which is statistically significant reduction of anxiety (t=19.29, p<0.0001) (Figure 1).

During the first testing of the outpatients treated at home by the doctor of Tuzla’s Heath Centre in charge the initial average score of anxiety was 44.43 ± 2.63, while after two weeks it was 46.15 ± 2.62, which is statistically significant increase (t= -6.43, p< 0.0001)

Depression

During the first testing of the hospitalised patients at the Palliative Centre through the Zung self rating depression scale the value of 62.68±5.88 was achieved. Two weeks later the score was 48.73±4.11, which is significantly lower in comparison to the first testing (t = 21.35, p < 0.0001) (Figure 3).

During the first testing of the outpatients the level of depression during the first measurement was 48.65 ± 4.90, while it was 47.33 ± 5.37 two weeks later, which is statistically significant decrease (t=3.05, p=0.004)(Figure 4), but the statistical significance is smaller than with the hospitalised patients treated at the Palliative Care Centre.

4. DISCUSSION

Anxiety when connected to cancer amplifies the feeling of pain, interferes with sleeping, causes nausea and vomiting, and negatively influences the quality of patients’ lives. If it is untreated serious anxiety can influence the life span of patients. The symptoms of anxiety are common when cancer is initially diagnosed, when the decision about the treatment is brought, during the feeling of apprehension about the reverse or progression of the illness, but the percentage of fully developed anxiety disorders is not significantly bigger than in general population. Contrary to the presumptions the advanced cancer patients have less fear of death than of uncontrollable nature of illness, of the condition in which they would remain alone or dependent of others.

There is pressing evidence about the connection between cancer and depression, with the prevalence of depression connected to solid tumors from 20 to 50%. It was Galen who noticed that ‘melancholic’ women more frequently fall ill with cancer than ‘sanguine’ women. Since that time the researchers and clinical workers have tried to explain a possible connection between psychological factors, especially depression, the development and progression of cancer. There are plentiful of researches about that specific connection, which often have various results and contradictory conclusions.

Some researches reveal that the symptoms of depression are connected to the prevalence of cancer and higher risk of cancer caused death. Depression is also interrelated with weaker pain control, poor compliance, and diminishing wish for the long lasting therapy. Symptoms of depression could sometimes be a ‘normal reaction’, psychological disorder, or bodily reaction to treatment or cancer. Since cancer can cause anorexia, weight loss, fatigue and other vegetative symptoms, the actual diagnosis of clinical depression is connected more to psychological symptoms such as social seclusion, ahedonia, dysphoric mania, the feeling of being useless or being guilty, low self confidence, and suicidal thoughts. Therefore, it is important to emphasize that during the process of assessment of de-
pressive symptomatology there is a risk of not recognising it (the assessment of depression symptoms as normal reaction) or over diagnosing (the assessment of normal emotional reactions or symptoms connected to cancer as a part of depression).

An increased suicidal risk with cancer patients is connected with the advanced stage of illness, poor outcome, delirium, poor control of pain, depression, history of psychiatric prognosis, ill usage of medicaments, the history of suicide attempts, and social isolation. Passive suicidal thoughts are more common with cancer patients than the real suicidal thoughts, although they can be present with the patients who do not want to cooperate or those who refuse the treatment. There are several studies about psychoneuroimmunological mechanisms, depression, and cancer. The data about the connection between mood disorder, NK cells, cytokine, cancer development, and survival is still unclear. The influence of depression on mortality has not been confirmed yet although depression is connected to the faster progression of the illness. There are possible reasons of neuroimmunological change such as lack of cooperation during the treatment, shift in mood, and influence of depression on social, work, and family existence (9).

Lung cancer patients have pronounced level of depression and anxiety (10). The understanding that they are suffering from lung cancer, the length of 5-year survival, symptoms that are occasional, symptoms which become more prominent such as cough, lack of air, blood spitting contribute to the fact that the level of fear and depression is very prominent (11).

The final studies show that hospitalised patients at the Palliative Care Centre, where a multidisciplinary team is functioning, have higher level of anxiety and depression at the beginning than after the two-week period. The value of Zung’s depression scale was 62.68±5.88 at the beginning, while its value dropped after two-week period to 48.73±4.11, which is a significant statistical reduction (p<0.0001). It is similar with anxiety where at the beginning the scale was 51.55±2.88, and it was 44.53±2.98 after two weeks, which is also a significant statistic reduction (p<0.0001).

The statistic is different with the group of patients who were not treated at Clinic, who were outpatients. The level of depression at the beginning was 48.65±4.90, while after two-month treatment it was 47.33±5.37, which is a significant statistic reduction (p=0.004), but the reduction was smaller than with the patient treated at the Palliative Centre. On the other hand the outpatients’ average score of anxiety at the beginning was 44.43±2.63, while two weeks later it was 46.15±2.62, which is significant statistic increase (p<0.0001).

5. CONCLUSION

Treatment of lung cancer patients within the Palliative Care Centre significantly reduces their level of anxiety and depression and it represents a better way of treatment than the treatment at home/ambulatory care.