The article is devoted to the quality of life of patients after laryngectomy. Cancer diseases disturb feelings of safety, one’s own value, self-acceptance, and independence. The investigation has been made by using the following research tools: The HAD Scale, which assesses the frequency of occurrence and intensity of fear and depression and The EORTC Scale QLQ-C30 that enables the appraisal of physical state, social functioning and coping with emotions. On the basis of the obtained results we may conclude that patients’ emotional state may influence and modify the experienced physical symptoms and social functioning. The increased level of fear results in fatigue and difficulties in social functioning. Clinical depression symptoms may result in breathing disturbances and loss of appetite. Learning about side-effects of therapy and problems resulting from it may help improve patients’ psychophysical comfort through education, advice, and social support.

Key words: laryngectomy, quality of life, psychosomatic

INTRODUCTION

This article is devoted to the quality of life of patients after laryngectomy. Civilization development, improper nutrition habits, and unhygienic lifestyle all facilitate cancer development. Tumor diseases, known already in antiquity have spread significantly during the 20th century. After circulatory system diseases, they are listed as the second most frequent reason for death. It is estimated that each year, about 10 mm people fall ill with tumors, and that in 20 years the incidence will double. International Union Against Cancer (UICC) together with World Health Organization (WHO) have announced a global program for fighting tumors based on the European experience. The program envisions the
establishing in each country a separate national agenda for fighting tumors, creating multi-specialized anti-cancer centers (CCC - Comprehensive Cancer Centers), keeping preventive actions, and early detection and appropriate treatment of tumors. An integral part of each national plan is popularization of knowledge about tumors (1, 2).

Among all malignant tumors of head and neck, larynx cancer occurs most commonly. Cancer diseases disturb feelings of safety, one’s own value, self-acceptance, and independence. Moreover, effects of therapy create many new difficult situations for a patient, which may have big psychological significance. The basic methods of treating larynx cancer are surgery and radiotherapy. In the present work, the persons after laryngectomy who stand the chance of return to health after the operation but at the same time experience a series of negative consequences of both physical and psychosocial nature have been dealt with.

A growing body of evidence suggests that chronic, terminal medical illness is associated with an increased prevalence and incidence of psychiatric and psychological disturbances and those, in turn, affect patient’s quality of life (3). In modern oncology, the quality of life and psychological well-being are among main parameters for assessment of recovery. Successful coping with life crisis of cancer and adapting to new reality of chronic illness, requires creating adequate self-image and mature defense mechanisms.

Patients after laryngectomy often complain not only about physical disability, but also about psychological changes. They consider themselves as being more irritable, easy worrying, with a tendency to be sorry for themselves. Anxiety, depression, irritability, and fatigue are frequent complaints in the weeks following surgery, while low self-esteem and feeling of disfiguration may develop in a minority. Some people who have had a laryngectomy are very worried about the change in their appearance. They feel embarrassed about the tracheostomy, which can affect their self-confidence and may be distressing. The difficulties in communication with other people and changes in patients’ relationships with family and friends can lead to social isolation. In some cases, patients may withdraw from social contacts, because they feel socially awkward or embarrassed by their condition (for example difficulty in swallowing). In addition, some patients experience medical procedures (such as surgery, chemotherapy or radiation) as more aversive as the disease itself. How well patients adapt to life with illness can have medical consequences and affect patient’s life on multiple levels – behavioral, emotional and social (4-6).

MATERIAL AND METHODS

The study was performed according to accepted practice concerning safety and ethics of human experimentation and according to the guidelines set by the Declaration of Helsinki for Human Research.
The investigation was made using the following research tools: The Hospital Anxiety and Depression Scale (HAD) by A. S. Zigmond and R. P. Snaith (7), which assess the frequency of occurrence and intensity of fear and depression and the EORTC Scale QLQ-C30 and a supplemental one - the QLQH&NC-35 Scale, worked out by the European Organization for Research and Treatment of Cancer, which enable appraisal of physical state, social functioning, and of coping with emotions (8, 9).

The study was carried out in a laryngology unit of Provincial Hospital in Lodz, Poland. The examination included 51 patients who were subject to partial or total laryngectomy due to squamous carcinoma of the larynx. The basic procedure of treatment for all patients was a surgical method. Radiotherapy and chemotherapy were applied as adjunctive treatment. In the tested group there were 48 (94%) man and 3 women (6%) aged 48 to 84. The mean age was 62 years. The majority of patients (78%) had more than elementary education, elementary education had 18% of group, and higher education 4%. Time that had elapsed from laryngectomy surgery varied from 2 weeks to 3 years.

RESULTS

An analysis of data obtained on the basis of the psychometric scales used, allowed to define the occurrence and intensity of affections in regard to the illness of larynx cancer, and also to define the side effects of treatment applied. The majority of the ill (96%) evaluated their general health condition as average. Only 4% of patients stated a remarkable worsening of health condition in relation to the illness and the following treatment.

Significant physical dysfunction occurred in 4% of the ill. These people required help not only when performing tiresome activities, but also when eating, putting on clothes, washing or using a toilette. The majority of the ill evaluated their physical dysfunction as insignificant or moderate; 71% and 25%, respectively. Special attention should be paid to disorders in social functioning, because as many as 44% of the ill found the lack or remarkable limitation of contacts with other people. These patients complained about lack of understanding not only from people unknown to them or friends, but even from the closest ones. General problems in communication with other people were claimed by 92% of patients.

Patients also complained about feeling fatigue. As many as 61% of them felt weakness of significant intensity and the need for frequent resting. Some patients (49%) pointed to a strong or moderate loss of appetite. Pain also was a problem of a significant or moderate intensity, experienced by 34% of the group. A similar number of the tested complained about moderate disorders in breathing, and nausea and emesis.

The HAD Scale gave the following results: clinical symptoms of fear in 80% and symptoms of depression in 86% of patients. The results obtained show that cancer and difficult situation in which the patients were, as a result of laryngectomy, imposed on them a substantial psychological burden. That may stem from lack of acceptance of the after-operation state, the existence of many
symptoms, or problems linked to the method of treatment chosen, which disturbed normal functioning of the ill and the family members.

The results obtained were subject to an additional statistical analysis to verify the hypothesis about the possible relationship between the emotional state and the experienced physical symptoms and social functioning. Table 1 presents the results of Spearmann’s correlation analysis used to this end. Significant correlations were found between the level of fear, on the one side, and the feeling of fatigue and difficulties in social functioning on the other side. Also, depression symptoms correlated significantly with breathing disorders, nausea, and loss of appetite.

**Table 1.** Interrelation between fear and depression vs. somatic symptoms and social functioning.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Correlation coefficient</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear level vs. feeling of fatigue</td>
<td>0.35</td>
<td>P&lt;0.05</td>
</tr>
<tr>
<td>Fear level vs. social functioning disturbances</td>
<td>0.30</td>
<td>P&lt;0.05</td>
</tr>
<tr>
<td>Depression intensification vs. breathing disorders</td>
<td>0.38</td>
<td>P&lt;0.01</td>
</tr>
<tr>
<td>Depression intensification vs. nausea and emesis</td>
<td>0.37</td>
<td>P&lt;0.01</td>
</tr>
<tr>
<td>Depression intensification vs. loss of appetite</td>
<td>0.30</td>
<td>P&lt;0.05</td>
</tr>
</tbody>
</table>

**DISCUSSION**

Among the results presented, special attention should be paid to disorders in social functioning, because, as mentioned, as many as 44% of the ill stated the lack or significant limitation of contacts with other people, and general difficulties in communication were claimed by 92% of the group. Patients after laryngectomy often complain about a negative attitude of others toward them. It is then worth considering why such social reactions occur. On the basis of tests referring to discrimination of people chronically somatically ill, it may be said that fear against upholding contact with them exists in a few forms. Firstly, contact with such persons brings about an association that we ourselves also fall ill, and such a thought may cause discomfort. Secondly, dysfunctions, deformations, which appear in the body of the ill person may bring about unfavorable esthetic sensations, and not everybody is readily up to it (10). Another reason may be lack of knowledge how to behave in contact with chronically ill people (in what situation one should help them, which topics to avoid during conversation, etc.). It seems optimistic that, at least in some countries, a decrease in such negative attitudes can be observed. In particular, a systematical decrease in discrimination against people suffering from cancer is apparent in the US. It results from an increasing number of such people, and thus from the possibility of their wider influence and interactions on the social level. In comparison with the situation in the 1970s, when occupational discrimination
of patients suffering from cancer was widespread, the scale of this problem is much smaller at present (11, 12, 13).

It also seems worth paying attention to the psychosomatic interrelations described in the present study. It appears that patients’ emotional state may influence and modify physical symptoms and social functioning experienced by them. An increased level of fear results in fatigue and in difficulties in social functioning. Clinical symptoms of depression may result in an increase of breathing disorders, nausea and emesis, and in loss of appetite. Apart from a cognitive value of these results, the possibility of their practical application should be raised. Learning about side effects of therapy and resulting problems in patients’ life may help improve one’s psychophysical comfort through education, advice, and social support. The possibility arises to set up groups of self-help to control patients’ functioning. Such groups are made up of people affected by similar problems who together try to combat adversities. As it has been observed, such group members provide support to one another in an exceptionally efficient way – they understand one another perfectly well, they can share experiences and look for ways of resolving common problems, or show and receive acceptance which helps them to maintain their self-esteem, while those who succeeded in their efforts support the others (14-16).

The above mentioned interactions may indirectly contribute to improvement in social contacts by increasing satisfaction in the scope of social contacts, increasing satisfaction from activities undertaken in life, and, by so doing, to improvement in the quality life of people after laryngectomy.

REFERENCES


Autor address: Kamilla Bargiel-Matusiewicz, Department of Psychology, Medical University of Silesia, Medyków 12 St., 40-752 Katowice, Poland; phone +48 32 2088645, e-mail: k.matusiewicz@op.pl