

PSYCHOLOGICAL DISTRESS AND SOCIAL FACTORS IN PATIENTS WITH ASTHMA AND CHRONIC OBSTRUCTIVE LUNG DISEASE

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SUMMARY

Chronic respiratory diseases which embrace asthma and chronic obstructive pulmonary disease (COPD) are common in the population. In a large number of cases they are diagnosed very late. Statistics of deaths, especially in the case of COPD, are underestimated because morbidity and mortality can be affected by other comorbid conditions, for example cardiovascular disease.

Asthma and COPD impair not only physical functioning of patients but also affect their psychological state. Mood disorders and cognitive function impairment are more often observed in this group than in the general population. It has been proven that the coexistence of psychological dysfunction significantly worsens the functioning of patients (affects, among others, their work, family and social lives) and has an impact on the course of the somatic illness. First of all, patients with cognitive deficits have greater problems in applying treatment recommendations.

Accordingly, it seems to be important to pay more attention to the problem of mental disorders in patients with obstructive lung diseases. There is a clear need for a multidisciplinary approach that will enable prevention, early detection and effective treatment of the psychological disorders in that group of patients.

Key words: asthma – COPD – anxiety - depression

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INTRODUCTION

Obstructive diseases of the respiratory tract are a group of disorders characterized by the presence of a chronic airway inflammation leading to irreversible, as in the case of chronic obstructive pulmonary disease (COPD), or reversible (asthma) airway obturation. This is a group of the most common respiratory disorders in the population. According to WHO (2015) 65 million people suffer from moderate or severe chronic obstructive pulmonary disease (COPD) and about 3 percent of them will die from the disease within a year. The number of patients suffering from asthma is currently estimated at about 235 million people, usually younger than in the case of COPD, including children. It should be remembered that these figures are certainly underestimated (especially in the case of COPD). The limited access to spirometry and initially discrete symptoms make patients come to the doctor in advanced stage of the disease (Carlone 2014). Morbidity and mortality can be affected by other comorbid conditions for example cardiovascular disease.

Certainly every chronic disease affects patients' lives. Due to the progression of the disease a large group of patients is forced to use health care service more often than usual. Also work absence related to the treatment subsequent to the exacerbations is more frequent (WHO 2015). It is more difficult for patients to meet the challenges, they are often forced to change their work positions or employment cessation or even live with social assistance. This leads to the deterioration of the financial situation and is associated with the patients' social status.

Progression of the disease leads in advanced cases to chronic respiratory failure requiring home oxygen therapy or the use of noninvasive ventilation (NIV). Due to the availability and costs of portable oxygen sources (portable bottles or concentrators) patients remain at home without having the opportunity to leave it and take part in social life. It cannot be without an impact on their mental state.

It has been confirmed many times, that every chronic illness, no matter what its course is, greatly affects the mental state of patients. For example in the group of patients treated for the coronary heart disease a significant increase in the frequency of depressive - anxiety disorders was observed (Bunevicius 2013), and that the coincidence results in an increased risk of subsequent coronary event (Frasure-Smith 2008). A similar conclusion has been drawn by researchers in the case of the obstructive pulmonary disease. Patients with COPD presented significantly greater cognitive decline (Klein 2010, Orth 2006) and frequency of depression- anxiety disorders (Bratek 2015, Yohannes 2014a). The severity of inflammation in the airways of patients with COPD was associated with a higher risk of depression (Du 2014).

Depressive and anxiety symptoms are also relatively often present in asthma patients (Czyż 2014, Bratek 2015). Among individuals with severe asthma, an increased burden of symptoms was positively associated with the risk of a co-morbid depression (Yonas 2013). The presence of anxiety and depressive disorders was correlated with a poor asthma control (Di Marco 2010). Patients with poorly controlled asthma were more frequently older obese women, with a worse pulmonary function, more anxious and/or more depressed.

It can be assumed that some degree of psychological dysfunction in this group of patients is inevitable. The question is whether there exist any recognizable risk factors of psychological dysfunction in this group of patients or if there are any particular subgroups of patients that have an increased risk of psychological impairment in the future. Are there any factors which can be modified? Is the psychopharmacotherapy effective in this group of patients?

FAMILY FACTORS

A big role is ascribed to the quality of family relationships. Supporting relatives decrease this risk of anxiety-depressive disorders in patients and affects the beginning and course of psychiatric disorders (Tselebis 2013, Dinicola 2013) It has been proven, that the quality of family relationships affect the beginning and the course of addictions including smoking (Holm 2010). It should be remembered that in case of obstructive diseases quitting smoking is one of the main interventions and an impact on the dismissal of the disease and reduction in the number of exacerbations was proven. Bad family relations have an impact on initiation of smoking and are associated with lower rates of smoking cessation. In those particular cases treatment is less effective and the percentage of patients returning to smoking is higher (Holm 2010, Hoth 2015). It is worth noting that in the treatment of addictions (alcohol or drugs), much emphasis is placed on the environment and therapy involving relatives is considered to be more effective.

In the case of children treated for asthma- those from a dysfunctional environment present a higher percentage of eosinophils in the peripheral blood and the course of disease tends to be more severe (Ehrlich 2015).

SELF COPING

Good knowledge about the symptoms of the disease, especially prodromal symptoms of exacerbations and education in dealing with them plays a great role. The decreased sense of breathlessness is beneficial (improvement in MRC scale) and they have a reduced risk of hospitalization because of pulmonary reasons (Zwerink 2014). In turn, patients hospitalized many times are more often likely to present symptoms of depression or anxiety disorders.

PHYSICAL ACTIVITY

In patients treated for COPD the coexistence of anxiety-depressive disorders is associated with a deterioration of physical capacity (Di Marco 2014). Physical activity and in the case of patients with COPD rehabilitation can give results in improvement of cognitive functions (Herigstad 2015).

AIRWAYS INFLAMMATION

In asthma patients, researchers draw attention to the severity of airway inflammation as a factor predisposing

to the occurrence of anxiety-depressive and cognitive disorders. Patients with the cough variant asthma have a higher increase in the depression rate (Saito 2015).

THE COURSE OF THE DISEASE

In COPD patients as well as in asthma, chronic illness is associated with cognitive decline and increases the risk of dementia (Singh 2014, Rusanen 2013). Cognitive disorders play a role in the course of diseases. Patients presenting cognitive impairment usually cannot properly understand doctors instructions and have problems in applying that knowledge in practice. The skills of proper medication inhalation can be difficult to obtain (Allen 2009, Fraser 2012). Patients that achieve worse results in psychological tests find it harder to learn the use of inhalers, therefore there is a need of increased emphasis on training patients regarding their disease and the methods of use of drugs (George 2005).

OXYGEN THERAPY

Of particular need for care is the group of hypoxic patients with chronic respiratory insufficiency requiring home oxygen therapy. In cognitive tests, they received significantly worse results than patients with COPD who do not required oxygen (Dal Negro 2015).

DISCUSSION

As described above, there are groups of patients in whom there is a need of screening for a psychological dysfunction. These may include patients with a longer course of the disease and respiratory failure requiring oxygen therapy. Greater attention needs to be paid to the training of the patients about their own illness and behavior in crisis situations. Rehabilitation is also of great relevance. Promising results of trials of psychotherapeutic and pharmacological treatment of anxiety-depressive disorders in this group of patients are available (Yohannes 2014b).

CONCLUSIONS

The daily progress of knowledge about pathophysiology of somatic diseases gives new and better opportunities for recognition and pharmacotherapy optimization. Apart from the physical well-being, the patients' quality of life, their functioning and their social utility is influenced by a number of other than biological factors. It seems to be important to pay more attention to problems of mental disorders in patients with obstructive lung diseases. There is a clear need for a multidisciplinary approach that will enable prevention, early detection and effective treatment of the disorders described above.

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