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Depresja a choroba niedokrwienna serca

Depression and the ischemic heart disease

Streszczenie

Depresja i choroba wieńcowa są coraz częściej współwystępującymi jednostkami chorobowymi. Zauważono, iż osoby u których wystąpił ciężki epizod choroby wieńcowej częściej miewają depresję. U osób cierpiących z powodu depresji, równocześnie występuje większe ryzyko rozwoju choroby wieńcowej. Właściwym czynnikiem prognostycznym przebiegu choroby wieńcowej jest stan psychiczny chorego. Elementem kluczowym zapobiegania i leczenia choroby wieńcowej jest właściwy kontakt z pacjentem i pełne zrozumienie problemu choroby wieńcowej, co przy współwystępowaniu depresji znacząco ją komplikuje.

Abstract

Depression and coronary heart disease are more and more frequently co-occurring illnesses. It is noticed that individuals falling to the severe episode of the ischemic heart disease are more often struck by depression. Individuals, at whom disorders appeared with the depressive background, present an increased risk of the ischemic heart disease development. An inherent prognostic element in the course of cardio-vascular illnesses is a mental state of the sick person. The key element of prevention and curing in cardio-vascular illnesses is an appropriate contact, full understanding of the problem of the ischemic heart disease, which in the course of depression are made difficult.

Słowa kluczowe: depresja, współwystępowanie, choroba wieńcowa.

Keywords: depression, co-occurrence, cardio-vascular disease.

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INTRODUCTION

Deaths due to cardiovascular diseases excluding hypertension, cerebrovascular diseases and chronic rheumatoid disease, constituted almost a 30% of all deaths in Poland in 2007 in the age group above 35 year of life, but deaths due the ischemic heart disease accounted for over 13% of all deaths in the same age group [1]. The search of causes of the ischemic heart disease resulted in revealing many predisposing factors of cardiovascular diseases. Overweight individuals and those with diabetes, arterial hypertension and lipid disorders constitute the risk group [2]. According to literature accessible to the authors, cardiovascular diseases concern mainly elderly people, but also every now and then affect young individuals, physically and professionally active.

In relation to more and more frequent incidence of cardiovascular diseases at young individuals, great importance is being attached to psychosocial factors predisposing to the development of the ischemic heart disease (IHD), among others: models of behaviour, personality, living environment, financial standing, stress, fear and depression [3]. Depression constitutes the crucial psychosomatic factor supporting the development of IHD at individuals healthy so far [4], and coexisting with already developed cardio-vascular system disease, it worsens the prognosis and is increasing the risk of heart attack and death [5].

In 2002, depression affected 16-18 % of the whole of the Polish society, and in 70% of cases it appeared at individuals aged between 18 and 45 [6]. In the face of economic as well as social changes of Polish society, depression afflicts larger and larger percentage of the population, with the supporting role of mounting unemployment, lack of health-promoting behaviour, staff reduction in workplaces, as well as more and more universal model of a "single" marital status [2]. The effectiveness of the pharmacotherapy of depression can constitute the significant form of IHD prevention, as well as the very course of the disease.

Psychic and somatic symptoms of depression

Depression is an affective mental disorder, in the course of which constantly lingering feeling of sadness dominates, irrespective of the causes [7]. The diagnostics of depression can be formulated basing on criteria included in the International Statistical Classification of Diseases and and Health problems (ICD-10) or according to the Classification of the American Psychiatric Society (DSM-IV) [8]. They describe characteristic manifestations of depression i.e. lowering the mood lasting all over the day, loss of interest, malaise in the morning, the sleeplessness, the increase or the weight loss above the 5% in a month, lowered self-esteem, increased fatigability, attention deficit disorder, an unfounded sense of guilt, and recurring thoughts about the death. One can possibly talk about serious depression when the mentioned above manifestations persist for at least two weeks [7].

Apart from psychic disturbances, additional complaints can appear in the course of depression originating in the autonomic nervous system in the form of bradycardia, the pressure drop, orthostatic disorders, dizziness and headaches, having an adverse impact on the course of treatment and prognosing in accompanying illnesses [9]. Depression-suffering patients tend to use alcohol too much, smoke more than other individuals with similar addictions. Depression often appears with other chronic diseases, particularly if they involve hospitalization, pain and disability. The available literature shows the multidirectional relation between depression and coronary disease [10].

Coexistence of depression and the ischemic heart disease

Severe depressive episode increases the risk of death due to cardiovascular diseases [11]. Coronary heart disease can also support the developing of the affective polar – or bipolar disorder. Individuals with IHD suffer from depressions over twice more frequently. It was noticed that at the 16% of sick individuals after a heart attack, out of 222 participating in the study, within 5-10 days of admitting to hospital, symptoms of serious depression appeared [12]. In other trial, it was showed that at the 20% of sick individuals with the coronary disease, depression appeared in 12% of individuals from the control group [13]. Individuals with acute infarction, at whom depressive disorders appear, are in a group of the increased risk of death because of another episode of a heart attack.

It seems that at individuals after infarction the most important factors inducing depressive disorders are stress resulting from fear of illness and anxiety about the own health and fate of the close family as for deaths. Current knowledge allows for stating that at sick individuals after the episode of infarction depressive manifestations have not been associated with the severity of the clinical course, neither with the degree of physical impairment. The part of these sick individuals had symptoms of depression still before the development of the infarction episode. Patients, at whom depression has appeared, are more exposed to severity of coexisting complications, on account of more rare contact with the doctor, or with the lack of concern with treatment.

Etiology of depression and the ischemic heart disease

In depression there are a few mechanisms supporting the development of pathological changes in the cardiovascular system: increase in the activity of the hypothalamic-pituitary-adrenal axis (HPA), activation of the catecholamine system, over reactivity of immunological system, the pathological increase in the activity of the thrombotic system as well as damaging the endothelium of vessels. Additional risk factors include smoking, lack of the physical activity, alcohol abuse, and eating disorders.

Increased activity of the HPA axis system as the reaction to the chronic stress, may lead to hypercorticolemia. HPA axis is the main object of studies in depression on account of the close relationship with mechanisms of stress. In stress mechanisms, cortisol and corticoliberin will matter greatly. Current studies hold that in obese individuals, suffering from depressions, hypercorticolemia is more frequent than, in overweight individuals without depressive manifestations [1]. According to Weber-Hamann et al. stress factors along with the hyperactivity of the HPA axis predispose the obese to the formation of arterial hypertension, dyslipidemia, insulin resistance, and type II diabetes [14].

Excessive activation of the catecholaminergic system can cause hemodynamic disorders i.e. tachycardia, contraction of coronary vessels, an increase in arterial pressure. This is connected with the high concentration of the noradrenalin.

The chronic adrenergic stimulation and the majority of the sympathetic nervous system can in consequence lead to the lowering the threshold of excitability of myocardium, and in consequence lead to the ventricular fibrillation, which can increase the risk of the death because of the cardiac arrhythmia. Moreover, continuing increased peripheral resistance can cause hypertension and in chronic states, may contribute indirectly to the hypertrophy of the left ventricle.

Social impact of depression and ischemic heart disease

Individuals struck with IHD with coexisting depression, apart from losses in the physical health, also suffer from numerous psychosocial and socio-economic consequences. The lowered mood associated with depression makes the social life impossible for them and causes failures in the professional sphere. Such individuals reach more often for alcohol and cigarettes; they eat irregularly, causing nutrition ailments [12]. The dislike for social contacts can consecutively increase depression causing the occurrence of the "vicious circle" [4]. Reduced physical activity caused by both illnesses will increase IHD manifestations, and worsen prognosis for its positive treatment outcomes. Since these illnesses are connected with a reduction, or a lack of the occupational activity of the sick person, the economic situation may enforce the interruption of the drug treatment, and in the later period may lead to lowering of patient's socio-economic conditions [11].

Prophylaxis

Prevention of depression and ischemic heart disease seems essential. One should quit cigarette smoking and abusing alcohol. A standardization of the body weight also is of great importance [14]. Equally important are physical activity and well-organized working day; all of these will spare stress situations. As for the pharmacological prevention, the appropriate pharmacotherapy of depression will improve the quality of the patient's life and can indirectly improve overall prognosis. Some antidepressants from the group of inhibitors of the serotonin reuptake can reduce aggregation of platelets [15]. In the prevention of complications of depression in IHD, a proper care of the sick person is also important. Here a family and a social welfare play the fundamental role. Quality of care at Care homes and Care treatment homes, hospices, has a major impact in curing and preventing depression amongst individuals who stay there.

CONCLUSIONS

Increasing pace of life, excess of stress factors result in the fact that depression more and more often appears among the Polish population and practically covers all age groups. The pace of the life contributes to the development of cardiovascular diseases. The excessive mental strain leads to the development of depression, and next, through disorders of hemostasis, and hemodynamics, leads to the development of heart disease. If depression accompanies already existing IHD, the prognoses are worse as well as are the therapeutic effects of treatment, which altogether may bring the risk of the death as consequence of a heart attack. Numerous research studies confirm the relationship between the development of depression and coronary heart disease. The treatment of depression consists not only in the improvement of living conditions amongst the affected individuals, but also in the improvement of prognosis in the IHD course and getting the best therapeutic effects possibly. Without any doubt prevention of depression plays an important role both in the primary as well as secondary prevention of cardiovascular diseases, therefore, an early detection of depression is very important and necessary for its curing, particularly at sick individuals after the episode of a heart attack experienced in the past.

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