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### *Health resort rehabilitation of the cardiological patients*

Health resort rehabilitation consists in the health improvement of the patients after sudden cardiological incidents. The volume of health resort rehabilitation has radically changed over the years. The reason is the development, which improves the general condition of patients, gives them an opportunity to return to activity, but at the same time keeps them from the correction of the existing factors of risk. Cardiological rehabilitation releases the physical strength of the organism, modifies risk factors, and is an introduction to the secondary prevention and physical rehabilitation (1–3).

The treatment of the patients after myocardial infarction consists of three stages. They are: hospital rehabilitation, posthospital early rehabilitation (sanatorium), posthospital late rehabilitation (dispensary).

**Stage I. Hospital rehabilitation.** The aim of the first stage of rehabilitation is the quickest achievement by the patient of the initiative in everyday activities. After the treatment in the hospital the patient is most often directed to a sanatorium for the continuation of treatment (4).

**Stage II. Posthospital rehabilitation.** This stage consists in the complex influence on the patient and the introduction of the secondary prevention. It can be held in a sanatorium or in an outpatients' department. The second stage is held mostly in a sanatorium. The aim of the action in sanatorium is the continuation of treatment, physical rehabilitation, psychical rehabilitation and risk factors' modification. During this stage complex physical rehabilitation takes place. The authors of the articles referred to below say that the optimal physical programme gives physiological, biochemical, and haemodynamical effects for the patient after the myocardial infarction (5, 6). A systematic physical activity releases heart spasms frequency, also in the state of rest, alleviates an increase in the blood pressure during the effort, which makes possible broadening of the physical activity of the patients after the myocardial infarction (7–9). Sanatorium rehabilitation is also a counteraction with risk factors. Implementation of the secondary preventive rules is necessary to prevent the next myocardial infarction and release the risk of complications. Psychical rehabilitation is an indisputable component of the full programme of cardiological rehabilitation affecting stress symptoms, reducing fear and anxiety and also teaching proper techniques of coping with stress (2, 10, 11).

**Stage III. Dispensary rehabilitation.** Its aim is the improvement of the tolerance of effort, the support of temporary effects of treatment, and releasing the risk of disease relapse. It is realized in cardiological clinics and by family doctors, through conducting periodical control examinations and verification of pharmacological treatment.

The aim of the research was the recognition of the rehabilitation benefit and rehabilitation influence on the tolerance of effort, lifestyle and the psychical condition of the cardiological patients.

## MATERIAL AND METHODS

100 persons after the myocardial infarction took part in the presented research. They stayed in the Cardiological Hospital in Nałęczów in order to continue the treatment. More than a half of the examined were men. Most of them were at the age of 41 to 60 years, the remaining persons were over 60. The study was approved by the questionnaire of inquiry. It consisted of two parts, A and B. Part A concerned the mode of the patients' life before myocardial infarction. Part B concerned the state of health after health resort rehabilitation.

The aim of the research was recognition of benefits resulting from the sanatorium treatment of patients after a heart failure, the determination of changes in their physical and mental state before and after the stay in the sanatorium, as well as showing the influence of the sanatorium treatment on the lifestyle of the patients.

## RESULTS AND DISCUSSION

The results of the research proved that mostly men are afflicted with myocardial infarction. The majority of persons (64%) who stayed in the sanatorium after the myocardial infarction, were men.

The research confirmed that myocardial infarction is a result of the existing diseases of the circulation system, but can also be the first symptom of heart disease. More than a half of the people examined did not suffer from heart disease before the myocardial infarction. The myocardial infarction was most frequent in persons with additional diseases such as atherosclerosis, high blood pressure, diabetes, obesity. Almost all of the researched people (88%) confirmed the existence of additional diseases among the most often mentioned (Fig. 1). Half of the persons informed about heart diseases in their families.

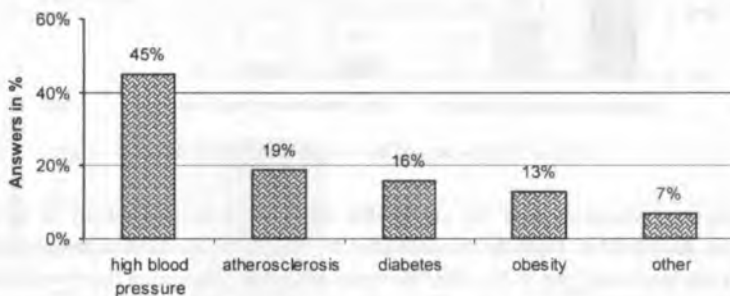


Fig. 1. Coexisting diseases

The sanatorium therapy consists in using different types of cure (Fig. 2), mostly gymnastics (41%) and mineral bathing (18%). The important fact is that 10% of the researched were treated with the musical therapy.

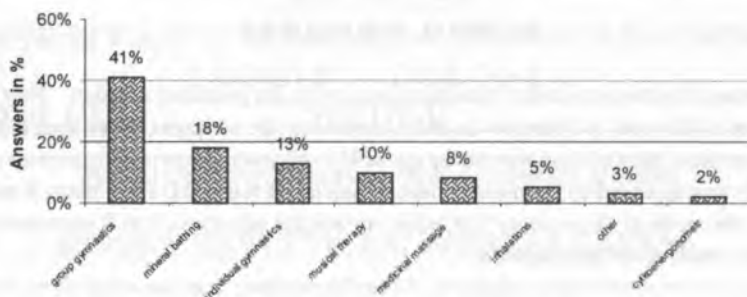


Fig. 2. Treatment used in the sanatorium

A comparative analysis of the lifestyle of the patients before and after sanatorium treatment shows benefits coming from their stay there and the correction of risk factors. The research demonstrated the growth of the patients' interest in their health, which is reflected in the control frequency of the important parameters connected with heart diseases. More and more persons often controlled their blood pressure and cholesterol level. The frequency of blood pressure controls after the stay in the sanatorium has clearly increased (Fig. 3).

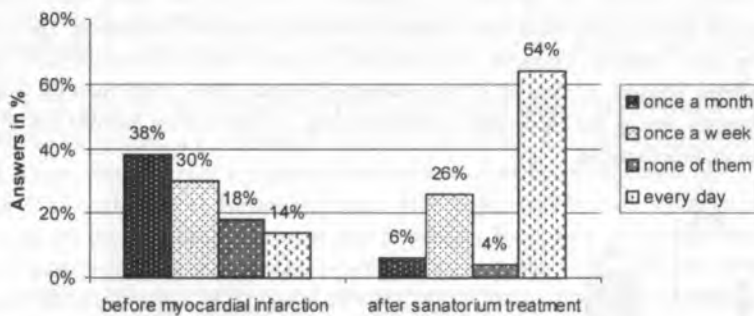


Fig. 3. Frequency of blood pressure controls

The sanatorium treatment after the myocardial infarction consisted mostly in an individual psychological effort. As it follows from the research after the stay in the sanatorium the physical activity of the patients has increased (Fig. 4, 5). After the treatment in the sanatorium there were more people who did gymnastics (23%). After the sanatorium treatment the decrease in the number of persons who informed about their problems with the system of blood circulation, was observed. Some disorders, such as the pain in the chest, occurred more rarely in comparison with the period before the sanatorium treatment.

According to health education acquired during the treatment, the patients were more aware of the danger coming from using wrong diet or from low physical activity. All the tested patients planned their return to work. Almost all of them (86%) said that the stay in the sanatorium had a positive influence on their health (Fig. 6).

Among the factors influencing patients' health, beside the treatment also the regular lifestyle and the climate of sanatorium (Fig. 7) were important.

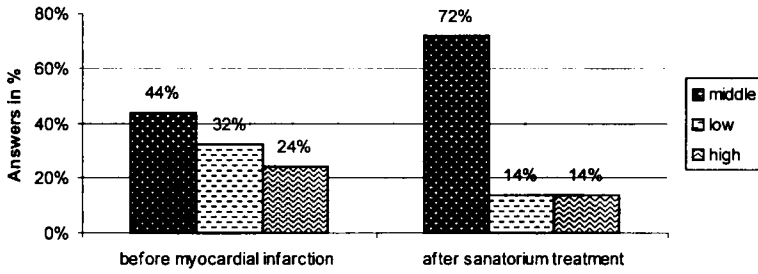


Fig. 4. Physical activity

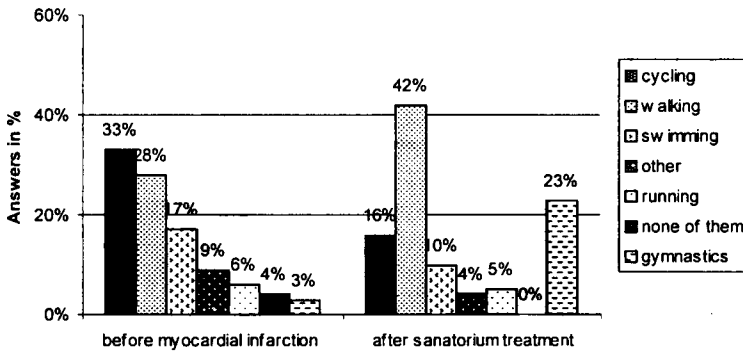


Fig. 5. Kinds of physical activity

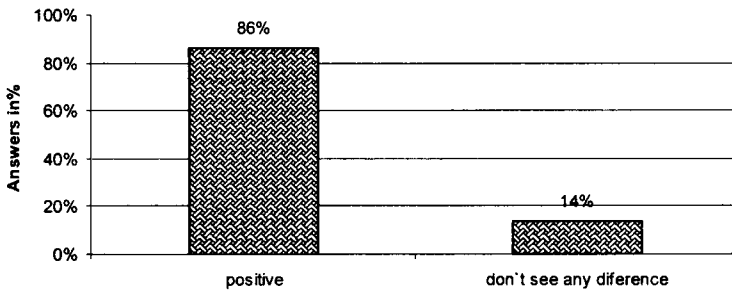


Fig. 6. Influence of the stay in the sanatorium on health

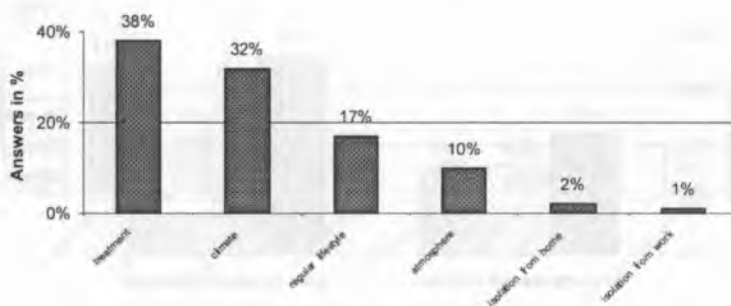


Fig. 7. Sanatorium factors influencing health

### CONCLUSIONS

1. People from 40 to 60 years old, mostly men go through myocardial infarction more often.
2. Health education in the sanatorium favours the changes in the lifestyle and elimination of risk factors.
3. The individual and systematic physical activity improves the strength of the whole organism.
4. The elimination of the patient from his work and living environment restores him to health, his social roles and his job.
5. Complex sanatorium rehabilitation reduces the patients' fear for their health condition and improves the ability to cope with stressful situations.

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### SUMMARY

The disease of blood circulation, especially myocardial infarction is the important health problem of nowadays. The treatment of heart failure in the hospital has drastically changed. The modern methods of treatment are used more often, which speed patient's recovery, and on the other side, shorten his stay in the hospital. A patient is often not ready for the situation changed by the disease, does not have knowledge about the allowed physical activity and the secondary prevention of heart failure. The researches quoted in this article, verify the necessity of the continuation of myocardial infarction treatment in a sanatorium. They also show numerous benefits following mostly from the change of the patients' lifestyle. The researches point to the growth of the interest in one's own health, the increase in blood pressure and the level of cholesterol control, using the proper diet and physical activity. As it follows from the researches the knowledge of the patients about the reasons of myocardial infarction and the risk factors has improved. The patients undergo the psychical rehabilitation, which lets them accept the disease and function in an active way in the family life, social life and in professional life. The researches and the considerations represented in the present paper show that the sanatorium treatment of the myocardial infarction is of great importance with regard to both the quality of patients' life and the secondary prevention.

### Rehabilitacja uzdrowiskowa osób z chorobami układu krążenia

Choroby układu krążenia, a zwłaszcza zawał mięśnia sercowego, stanowią poważny problem zdrowotny obecnych czasów. Leczenie zawału w szpitalu uległo w ostatnim czasie radykalnej zmianie. Coraz częściej stosowane są nowoczesne metody leczenia, które z jednej strony przyspieszają powrót do zdrowia chorego, a z drugiej skracają jego pobyt w szpitalu. Pacjent często nie jest przygotowany do zmienionej sytuacji, nie posiada wiedzy na temat zakresu dozwolonej aktywności fizycznej, prewencji wtórnej zawału. Przytoczone w pracy badania potwierdzają konieczność kontynuacji leczenia szpitalnego w sanatorium. Wykazują także liczne korzyści wynikające z tego rodzaju leczenia. Korzyści te odnoszą się głównie do zmiany stylu życia chorych. Badania wykazują wzrost zainteresowania własnym zdrowiem, zwiększenie kontroli ciśnienia tętniczego, poziomu cholesterolu, stosowania właściwej diety oraz aktywności fizycznej. Z badań wynika, iż po pobycie w uzdrowisku poprawia się wiedza chorych na temat przyczyn zawału oraz czynników ryzyka. Chorzy są poddawani rehabilitacji psychicznej, co pozwala im zaakceptować chorobę i aktywnie funkcjonować w życiu rodzinnym, społecznym i zawodowym. Leczenie uzdrowiskowe zawału ma ogromne znaczenie zarówno dla jakości życia chorych, jak i profilaktyki wtórnej.