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Postępowanie rehabilitacyjne w stwardnieniu rozsianym

Rehabilitation treatment in multiple sclerosis

Katarzyna Ciechanowska, Alicja Roeske

Katedra i Zakład Laseroterapii i Fizjoterapii CM UMK

Adres do korespondencji:

Uniwersytet Mikołaja Kopernika w Toruniu

Collegium Medicum im. Ludwika Rydygiera w Bydgoszczy

Katedra i Zakład Laseroterapii i Fizjoterapii

ul. Techników 3, 85-801 Bydgoszcz

tel. 608 40 77 35, email: kasia.ciechanowska@gmail.com

Streszczenie

Stwardnienie rozsiane (łac. sclerosis multiplex, SM) jest to przewlekła choroba demielinizacyjna, która wymaga kompleksowej i ciągłej fizjoterapii. Poprzez poprawę kompleksowości terapii, długość życia chorych na stwardnienie rozsiane zrównała się z przeciętną długością życia osoby zdrowej. Rehabilitacja u chorych na stwardnienie rozsiane musi być procesem, w przebiegu którego zachodzi współpraca między lekarzem, pielęgniarką, fizjoterapeutą i psychologiem. Należy odpowiednio zaplanować leczenie i sporządzić plan terapii uwzględniając cele bliższe i dalsze. Oprócz farmakoterapii (np. leczenie interferonem), stosuje się wiele ćwiczeń fizycznych oraz metod fizykalnych, które dążą do niezależności pacjenta. Istotny wpływ na skuteczność terapii ma również jej systematyczność i zaangażowanie osób bliskich.

Słowa kluczowe: stwardnienie rozsiane, fizjoterapia, kinezyterapia, fizykoterapia

Abstract

Multiple sclerosis (Latin: sclerosis multiplex, SM) it is a chronic demyelinating disease, which requires a comprehensive and continuous physiotherapy By improving the complexity of therapy, the lifespan of patients with multiple sclerosis has been equal to the average life expectancy of a healthy individual. Rehabilitation in patients with multiple sclerosis must be a process in which there is collaboration between a physician, a nurse, and a physiotherapist and a psychologist. You should plan your treatment and prepare your treatment plan accordingly, taking into account your goals closer and further. In addition to pharmacotherapy (eg interferon treatment), many physical exercises and physical methods are employed that seek the patient's independence. Significant influence on the effectiveness of therapy is also its systematic and involvement of relatives.

Key words: multiple sclerosis, physiotherapy, kinesiotherapy, physical therapy

Admission

Multiple sclerosis has always occupies a special place among the neurological diseases. It is very chronic, progressive and incurable disease, and therefore lasts until the end of life of the patient. Multiple sclerosis as inflammation demyelinating disease affects the central nervous system, the brain and the spinal cord. This results in multifocal (sclerosis) damage in those regions of the nervous system leading to the occurrence of multiple and varied neurological symptoms, which extend in the form of exacerbations (relapses), or a remission, that is, smooth progress. From the duration of the disease there is irreversible damage to the nervous system, however, the dynamics of development and degree of severity of the symptoms exhibit characteristics-individual and can vary widely [1].

Until recently, multiple sclerosis was seen as a severe and incurable disease, which resulted in mating her with a wheelchair. This was due to the fact that medicine had very little achievement in the treatment of this disease. This view is gradually changing, but some still think the first is the total physical disability. In the early 90's we introduced relief drugs waveform and delay of progression, and started to pay more attention to improving the rehabilitation. Multiple sclerosis is one of the neurological disease, which in recent years devoted much attention. It has been shown that the SM (lat. Multiple sclerosis), a disease related to the autoimmune process. Also carried out research which showed a huge difference between patients undergoing rehabilitation, and those not rehabilitated. The development of knowledge about MS both doctors and the entire medical care, as well as in people diagnosed with MS contributed to the progress of treatment and thus better prognosis. They started to pay attention to the relationship between the degree of disability and quality of life of the patient and the family caring for the sick.

Methods of the review

Review of the literature is based on the base of Internet-reviewed scientific journals domestic and foreign. In the preparation of this report we used works on the etiology of multiple sclerosis, as well as the clinical picture in the rehabilitation treatment of this disease.

Etiology

The incidence of multiple sclerosis largely depends on the gender and age. The advantage of morbidity in women is visible in all studies conducted around the world. According to the analysis, this ratio is 1.2 to 3 times higher in women than in men, and this is probably due to a higher incidence of viral diseases, or more, with women in the world's population. The first symptoms of multiple sclerosis occur in people between 20 and 40 years of age. Similar data are visible on the Polish territory. Patients with childhood form of MS, that is, before the age of 16 and after 50 years, the late MS is very little. This value does not exceed 10% of all cases. Rarely the disease can also occur after the age of 60. The average age of onset in Poland, Tczew was 30.7 years, and 30 Lublin, 1 year. Some studies have shown that 10-15% of cases of familial form, which means that one of the risk factors is genetic. Risk of multiple sclerosis in the case of the first stage is the relationship as much as 20-30 times higher and the second stage about 3-fold higher [2, 3].

Clinical picture

Patients with multiple sclerosis are often reluctant to visit a specialist, because they see that these symptoms are due to an active lifestyle, a lot of responsibilities, and hence - a huge body fatigue.

First disorder can not go wrong with just fatigue or symptoms caused by vitamin deficiency. The symptoms occurring in the initial stage of the disease are those which relate to the movement, and they also include paresis and ataxia. In the later period of the disease also occurs fatigue and muscle fatigue and the persistence of spasticity [4]. Paresis pyramid on both lower limbs and the upper limbs, the more intensively and earlier are mainly in the lower part of the body. Paresis may relate to only one, but often include more limbs. A typical weakness occurring in multiple sclerosis is paraparesis, hemiparesis or section for the two

lower extremities or both of the upper. Often there is also tri- and tetripareza. Paresis may occur at the time of relapse duration, and then most often resolve spontaneously, especially in the initial stage. Later, in the secondary phase of chronic paresis they are responsible for a major cause of disability of the patient, as your progress through the cause inability to walk independently.

Another sign for a motion system is ataxia, which is defined as the absence of, or impairment of movement coordination, or "ataxia" [5]. This effect is invariably connected to the trembling or inadvertent rhythmic and oscillating movement of the various parts of the body. The above-mentioned symptoms are observed in approximately 75% of patients with multiple sclerosis and are not at the beginning, and in the course of the disease. The most characteristic are the so-called. intention tremor and difficulty in performing alternating movement. These disorders result in the slow operation of the upper and lower limbs, and hence the gait. In serious cases, there is also ataxia body, which prevents the patient to maintain balance while standing or sitting.

Most of the patients during the relapse may be in a sitting position. However, anti-bedsore prophylaxis is very important, which involves frequent change of the patient's body position. It is also important to prevent contractures by performing passive exercises of inactive limbs and helping the patient in everyday activities.

To prevent disorders of the respiratory system, often resulting in pneumonia, perform breathing exercises. Very important is the education of the patient and the family, because physiotherapists should explain exactly what to do and what are the consequences of failure to comply with certain rules. During chronic and remission rehabilitation program it depends on the condition of the patient, and therefore its degree of disability and functional disorders dominant. Symptoms of the patient should be treated holistically. Should seek to reduce them and to gradually restore lost function by the patient. Frequently rehabilitation is done on an outpatient basis, because multiple sclerosis is a chronic disease in the course of which it is not necessary to stay in highly specialized centers. Only a person in a very advanced stage, with much severe spasticity, neurogenic bladder require this type of rehabilitation clinics.

Rehabilitation

The rehabilitation of patients with multiple sclerosis can not lead to overheating and excessive fatigue of the body. This does not mean, however, that movement therapy is contraindicated. Exercise helps maintain muscle length and flexibility and lead to increase their strength, mass and endurance. By muscle spasms, improved flow is filled with oxygen and nutrients blood. This results in easier its tributary to the tissues. Through training, one can also prevent the development of calcifications of bone and spastic changes. They also help in coordination disorders and problems on the part of the respiratory and urinary tracts. The above-mentioned changes show how important in patients with multiple sclerosis is a movement therapy. This is because it improves the functioning of every system in the human body.

Planning exercise must be based on the current condition of the patient. Taking into consideration the period of acute or chronic disability and sick person. Another will be therapy for people suffering from many years where there has been the emergence of spasticity are visible imbalance coordination and gait disturbances, and another patient who experiences a relapse, and the diagnosis is made in the last year. In people with advanced stages of attention is paid to exercise steps - passive, active in relieving, free and active learning verticalization and gait. Walking is also supported orthopedic aids, such as canes, crutches or wheelchairs, and also flakes and orthosis [6, 7]. Such patients often staying in hospitals, so it advanced therapy is feasible. Persons in the initial stage of the disease do not need this type of care. Their rehabilitation often does not look like a "typical" therapy, but is based on systematic training effort and the patient instructed preceded by a therapist or doctor. Besides, in recent years an effect of aerobic exercise to improve the capacity of the patient, without evidence of deterioration of its condition and cause a relapse [2, 8].

In multiple sclerosis uses classic relaxing massage, which is defined as a rhythmic exercise and release pressure on the body tissues. Massage beneficial effect on skin nutrition and causes vasodilation and the opening of the reserve capillaries. This leads to a faster flow through the tissue of blood rich in oxygen and nutrients. There is also action to strengthen the muscle pump and improve recovery after exercise by stimulating the metabolism and removal of waste substances from the tissues which cause excessive fatigue. Moreover, it comes to improving the elasticity of tissues and muscles become more efficient and durable. Too much or too little muscle tension tend to normalize. which promotes the backflow of spasticity in

patients with multiple sclerosis. Massage also acts on the whole body and all the systems including a by reflex sympathetic nervous system. The mechanical energy as it leads the massage for the release of biologically active compounds, and also acts directly on the nerve endings in the skin by changing their excitability and thus normalize muscle tone. Performing therapeutic massage should be aware of the principles of its application. Before starting treatment, it is recommended to conduct an interview with the patient, and then inform him about the course of massage. It is also correct positioning of the patient convenient for him and the therapist. When the patient lies back, the shaft should be placed under the knees and a pillow under his head; lying in front - roller is placed under the hocks; and lying sideways - a wedge between his knees. In addition to this you need to remember about ergonomics and their posture. Massage is always in the direction of intracardiac, and depends on the current state of health, the size of the massaged area and the number performed before treatment. Basic techniques in classical massage are stroking, kneading, rubbing, patting, vibration, rolling and shaking. In patients with multiple sclerosis, a massage is reduction of muscle tone. For this purpose, the development of delicate and slow stroking in a large number of repetitions, and the initially superficial and slow grinding. In addition to this you may also be used slow kneading and longitudinal vibrations. With an increase in the number of performed massage, you can increase the strength and speed, of course, paying attention to the condition of the patient to avoid surgery to reverse the effects. In the largest of reports on the impact of massage on multiple sclerosis showed significant difference between patients treated only with pharmacologically and those treated in the same way with additional massages, taking place twice a week. In the second group showed an improvement in the functioning of society, and to reduce the sense of anxiety and depression. Based on this example you can see the effects of classical massage for many ailments present in MS patients [9, 10, 11, 12]. In the second group showed an improvement in the functioning of society, and to reduce the sense of anxiety and depression. Based on this example you can see the effects of classical massage for many ailments present in MS patients [9, 10, 11, 12]. In the second group showed an improvement in the functioning of society, and to reduce the sense of anxiety and depression. Based on this example you can see the effects of classical massage for many ailments present in MS patients [9, 10, 11, 12].

Physical therapy often supports the process of rehabilitation of patients with multiple sclerosis. Contributes to combat or alleviate some symptoms resulting in an improvement in the health of the patient [13].

In 65% of MS patients have pain that is associated with damage to the nervous system. It is the nature of neuropathic pain may be chronic, sharp, or paroxysmal. Cold therapy also affects fatigue syndrome that occurs in patients with MS. This leads patients to increase muscle strength, improve balance and gait efficiency, which also results in a significant improvement in the mental state of the patient. This most likely results from an increase in the secretion of hormones in the body (endorphins), which in turn, increase physical activity. Another effect of cryotherapy is to improve the patient's condition in the case of ataxia. It has been shown that the 45-minute ice packs on the forearm contribute to the minimization of movements astigmatism. Cryotherapy supports therapy kinesitherapy, because after the surgery, patients should go to the exercise room. This treatment also plays an important role in the therapy using neurophysiological methods, or aerobic workout. It activates neuroprotective, neuroregenerative and neuroplastic processes [14, 15, 16, 17].

Another physical treatment used in patients with MS is electrotherapy. Energa current (plating) is applied in treatments requiring a continuous and uniform flow thereof, and to treatments electrical pulses of low frequency, resulting from interruption of current. In multiple sclerosis, these currents are primarily the use of painkillers. In addition, denervated muscles and stimulates slightly damaged, and also stimulates the muscles to work healthy. TENS prevent muscular atrophy. 58 patients often used electrostimulation of the trigeminal nerve and the detrusor muscle of the bladder and the pelvic floor muscles [2, 11].

A characteristic feature of the magnetic field penetration of the tissues of the system. This treatment affects the intensification of the processes of tissue respiration, increased scavenging by the tissues, stimulates the peripheral circulation reduces swelling, pain and inflammation, affects the nerve synapses acting on the flow rate of the efferent and afferent stimuli. In multiple sclerosis plays an important role in the treatment of pain, spasticity, chronic fatigue syndrome, cerebellar ataxia, sphincter dysfunction, visual disturbances, and depression. It noted an improvement in muscle strength, muscle tone, and normalization of deep tendon reflexes, improvement of visual evoked potentials 55, improving conductivity by means of visual and reduce the problems associated with sphincter [18, 13].

Hydrotherapy, also called hydrotherapy is a field treatment, which utilizes the interaction of water on the system. Hydrotherapy includes about 120 types of treatments that are used for the purposes of prevention, rehabilitation and treatment. Tap water used in hydrotherapy can have a temperature of 8 ° C (cold water) to 42 ° C (hot water). In the course of multiple sclerosis, however, use only lukewarm water limit not exceeding 30 ° C. This is very important information, because it is contraindicated in patients overheating of the body. Warm baths or cause CNS stimulation; their long-term effects of this system stops working. Whirlpool influence effectively to reduce muscle tension, relaxation of tissues and pain relief, and therefore a positive influence to facilitate the execution of active movement.

A valuable addition to the rehabilitation of patients with MS is a spa treatment. They qualify for patients with preserved his basic self-service [19]. The spa treatment is recommended solutions: brine, pearl, carbonic acid, especially sulfide and hydrogen sulfide salt and underwater massage (once a day, 20 min) and exercises in water at a temperature 30 ° C [19, 20, 21]. Swimming reduces spasticity and also causes general muscle relaxation. Related to this is the density change of the environment, the increased water resistance, which allows the execution of exercises of resistance, especially in the case of use of the respective gear. They increase the strength and endurance paraspinal muscles. Muscle relaxation conducive to a favorable compensation for performing exercises in the full range of possible motion in the joints. Water treatment should be carried out 2 times a week for 20 min; temperature - about 26 ° C. At all times pay attention to the well-being of the patient, as in people suffering from multiple sclerosis are often faster fatigue [19, 20, 22].

Patients with MS also recommends classes in music therapy. Properly selected exercises that are performed in a certain rhythm allow for motion support. These exercises act as a stimulant, but also reassuring. Through music, we can encourage the patient to exercise, at the same time it promotes the reverse his attention from the pain. During walking learning music suitable rhythm, which stimulates placing a suitable length and also facilitates the step of changing the direction of the walk [20].

Summary

Multiple sclerosis is undoubtedly very complex and not well-known health problem. We still do not know whether it is one disease or group of diseases with common

characteristics clinico - pathological. It is unclear due to the presence of several clinical forms, symptoms of differentiation, and a very individual course of each patient. This disease, in particular, requires a comprehensive rehabilitation, consisting of improving through movement, physical factors, as well as psychological support, which is equally important.

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