Central nervous system diseases - Parkinson's disease and MS are similar to each other in terms of symptoms associated with hand movement, and also in terms of the rehabilitation. Multiple sclerosis is a chronic disease. Particularly vulnerable are young people on it. This disease has a very diverse clinical manifestations ranging from mild to very severe, characterized by periods of exacerbations and symptoms of weakness. Improving the movement is to treat deficiencies in mobility and the major symptoms of the disease. Parkinson's disease, in turn, applies to persons aged 50-70 years. Symptoms that are worse are the result of damage to neurons of the substantia nigra, resulting in a decrease in dopamine occurs. Rehabilitation should be carried out completely from the early period of the disease. Alzheimer's disease, in turn, affects intellectual functions of the patient. Alzheimer's disease has different goals than the other discussed the rehabilitation unit. Pay special attention to the behavior of the patient and provide it with adequate welfare, not to feel embarrassed and confused during rehabilitation. Do not forget to help the patient and giving him clues to how best to cope with the activities of daily living. The initial stage of rehabilitation in these disease entities have the same objective pursued by both patient and his family. On each day of rehabilitation should be paid attention to the stage of disease, to take appropriate treatment program.

Streszczenie

Choroby ośrodkowego układu nerwowego – choroba Parkinsona i stwardnienie rozsiane są podobne do siebie pod względem objawów związanych z układem ruchu, a także pod względem celu rehabilitacji. Stwardnienie rozsiane jest chorobą przewlekłą. Szczególnie narażeni są na nią osoby młode. Choroba ta ma bardzo zróżnicowane objawy kliniczne od łagodnych do bardzo ciężkich, charakterystyczne są okresy zaostreń i osłabień objawów. Usprawnianie ruchowe ma na celu leczenie niedomogi ruchowej i głównych objawów choroby. Choroba Parkinsona dotyczy z kolei osób w przedziale wiekowym 50-70 lat. Objawy, które się nasilają są konsekwencją uszkodzenia neuronów istoty czarnej, w wyniku czego dochodzi do spadku dopaminy. Rehabilitację
należy prowadzić kompleksowo już od wczesnego okresu choroby. Choroba Alzheimera z kolei dotyka funkcje intelektualne chorego. Choroba Alzheimera ma odmienne cele rehabilitacji niż pozostałe omawiane jednostki. Należy zwracać szczególną uwagę na zachowanie pacjenta i zapewnienie mu odpowiedniego komfortu psychicznego, aby nie czuł się skrópowany i zagubiony podczas rehabilitacji. Nie należy zapominać o pomocy pacjentowi i dawaniu mu wskazówek, aby jak najlepiej radził sobie z czynnościami dnia codziennego. Początkowy etap rehabilitacji w tych jednostkach chorobowych ma ten sam cel stawiany zarówno pacjentowi jak i jego rodzinie. W każdym dniu rehabilitacji powinno się zwracać uwagę na stadium zaawansowania choroby, aby podjąć właściwy program leczenia.

Illnesses of the central nervous system - the Parkinson's disease and Sclerosis Multiplex are similar to oneself in terms of the symptoms associated with the system of the move, as well as in terms of the aim of the rehabilitation. The multiple sclerosis is chronic illness. Peculiarily they are exposed to it young persons. This illness has clinical symptoms very much diversified than mild to very heavy, periods of sharpening and weaknesses of symptoms are characteristic. [1, 2]

Motor streamlining is aimed at curing motor deficiency and main symptoms of illness. The Parkinson's disease is regarding persons next in an age bracket of 50-70 years. Symptoms which are intensifying are a consequence of damaging neurons of the black being, what is reaching the inheritance of the dopamine as a result of. One should conduct the rehabilitation comprehensively already for the early period of illness. The Alzheimer's disease next afflicts intellectual posts of the sick person. The Alzheimer's disease has different cells of the rehabilitation than remaining discussed individuals. One should pay special attention to keeping the patient and providing for him adequate psychological comfort so that he doesn't feel tied and lost during the rehabilitation. [5]

One should not forget about the help to the patient and indicating for him, in order to how best dealt activities of the everyday day with. The initial stage of the rehabilitation in these disease entities has the same put target for both the patient and his family. On every day of the rehabilitation it is necessary to pay attention to the stage of the progress of illness in order to pass the relevant program of the treatment. [3]

**Parkinson's disease - morbus Parkinsoni**

This is spontaneous, slowly progressing, degenerative illness of the central nervous system which is characterized by movement disorders in different parts of a body. Still a well-known first, initial cause which is commencing the pathological whole process isn't in this illness, however changes which are stealing the sick person in the brain are known. The place called the black being is built from nerve cells (of neurons) responsible for producing the chemical substance called the dopamine. This substance is responsible for the coordination of locomotions and essential to send nervous stimuli in the extrapyramidal system. From the unknown until today nerve cells are starting
the reason to die. Along with the fall in the cell count dopaminergic, a number of the produced dopamine is being reduced, to critical values (20% of the output value), which clinical symptoms of illness are appearing by. [8]

Clinical symptoms in the Parkinson's disease: fremitus, stiffness, akineza: bradykinesia, hipokinesia, disturbing the motor coordination, disorder repeatable automates of motor conspiracies, disturbing the system of the rhythm of the movement, masked of face, disturbing the walk and the attitude, bulbar symptoms - dysarthria and disorders of swallowing, cognitive disorder, disorder praxis of spatial, problem of the learning and remembering, dementia, depression. [8]

**Multiple Sclerosis - sclerosis multiplex**

This is illness of the central nervous system, being characterized by a presence of scattered foci of demyelination in the brain and the spinal cord from at first passing, and then with strengthened numerous neurological disorders. Illness has scattered character. He consists in switching an insulating layers of nerve fibres on in various areas of the brain and the spinal cord. Destroyed layers cannot already recover. Into their place a hard scar tissue is coming into existence. Since she doesn't have the abilities to transmit, characteristic of the healthy tissue, disruptions or total blocking the correct transfer operation of signals by nerves are taking place. Neurological symptoms very much are added variety. Causes weren't established, but it is known that illness has immunologic base. [4]

Clinical symptoms in illness of the multiple sclerosis: disturbing the eyesight, disturbing the sense of touch, disturbing the coordination, spastic paralyses, disturbing the walk and balances, muscle weakening, fremitus limbs, general pain, disturbing the peristalsis, dementia, depression, disturbing the speech. Symptoms and symptoms of an illness, what is very characteristic exactly of Sclerosis Multiplex, they are very diverse and are a result of multicentre changes in the central nervous system.

Ranks among the most frequent symptoms: pareses, paraesthesias and disorders of feeling, optic neuritis and visual disturbances, double seeing (diplopia), ataxia (cerebellar or brain stem), disorders of the diuresis, intestinal disorders, vertigo, spasticity of muscles. [8]

At the part of persons suffering from the multiple sclerosis permanent disruptions of feeling stimuli through hands and feet, not to say the entire hands and legs are appearing. Sick persons are feeling limbs which seem simultaneously cold, heavy and insensitive to all impulses tingle. Distinguishing is a great difficulty hot and cold and acute and blunt. If so precision are generally speaking possible, it are taking place after the relatively long time. [9]
In almost the 40% of Sclerosis Multiplex cases is leading to the optic neuritis. As a rule one eye is touched, the walk is happening, that illness is attacking both eyes. Sick persons can see surrounding kind of by the fog, the image is blurred or dark stains are found in it. This symptom is yielding entirely or at least partly, in such a way that a return to the previous visual acuity is usually taking place. However if inflammation followed in part of ophthalmic nerve put right behind the eyeball, it is then a visual field perhaps to be limited. At Sclerosis Multiplex also paralysing optic muscles is appearing, what patients see double as a result of. [10]

One should rank also disorders of the intentional course of moves among other symptoms objects are dropping muscles which cause that patients from Sclerosis Multiplex often write indistinctly, from hands etc. Disruptions of feeling the balance are added to it, of which an unstable way of walking, uncertain sitting down and standing are resulting. At some sick persons an ability to say is also disrupted, in such a way that distinct pronouncing words is coming for them with the great difficulty. [10]

Alzheimer's disease

Alzheimer's disease is progressing neurodegenerative disease, which is seeking the course for injuring nerve cells in various areas of the brain as a result of the accretion into in them of protein substances (beta - of the amyloid and the white tau). It causes progressing loss of intellectual functions causing dementia.

Clinical symptoms of the Alzheimer's disease: dementia, disturbing the short-term memory, preciseness are lacking said words, deficit cognitive disorder neurological symptoms: manifestations of the parkinsonian syndrom, symptoms deliberation, problems or loss of the sense of direction in the time and space, capacity limitation of the evaluation and the decision making, problem in performing everyday functions, sudden changes of the mood and behaviours without more clearly causes, change of the personality, depression. [2, 11]

Rehabilitation Proceedings

In case of the multiple sclerosis one should start physiotherapy very cautiously. Burdening the patient with exercises must take place slowly and gradually. The undue hurry is leading the sick person to the decline of the state, not to say for loss of certain had still functions of the body. The physiotherapist, before beginning exercises, should conduct observation of the condition of charge and determine purposes, which it is possible and which it is necessary to reach. The plan of entire
therapy must be discussed directly with the patient. In this way he will stay motivated for the cooperation. It is valid for it especially in the initial phase of physiotherapy, when exercises are difficult for the sick person and connected with the strong effort. [4]

There are in the multiple sclerosis explicitly no effective drugs against disruptions of the coordination and contractures. However through the rehabilitation it is possible to achieve the distinct improvement in motor possibilities of the sick person, teaching him the concentration and the certain kind of the automatic course of the move. If only exercises consistently and repeatedly are being repeated, effects in this respect can bring intended effects to the rehabilitation. Treating patients with the multiple sclerosis is aimed: relieving results of the phase, preventing results of illness, eliminating symptoms. [8]

So far didn't manage to establish the pharmacological causal treatment into Sclerosis Multiplex, leading to full healing. From here motor streamlining constitutes one of basic components of the comprehensive rehabilitation. [8]

Reducing spasticity of limbs as well as the ataxia is a crucial objective of kinesipathies and physiotherapies. We are ranking among important factors, enabling the sick person on Sclerosis Multiplex like fullest of moving and performing the basic functions necessary in the daily living. A move is a load-bearing middle of the rehabilitation: both exercises active, conducted independently by the patient, as well as passive, at of which a physiotherapist is helping the performance.

The way of conducting the rehabilitation is dependent from the kind and the degree of disability. Every person ill from Sclerosis Multiplex requires the individual care and precise selecting exercises. Main, shared and with basic aim for all three disease entities, before the accession to exercises a show is a stage for the patient and his family how the process of streamlining is supposed to look. Patients often feel lost, bent with increased symptoms of illness and often aren't truly conscious what around them is happening, therefore informing of the course therapy should be the first step of the psychotherapist. Before the accession to every next stage short leading into the proper training should also be I and appropriate proceedings rehabilitation what cells in a given disease entity and introducing and explaining a rehabilitation is supposed to serve, because sick persons can at some point being into advanced stages of illness to forget or not to want to participate in the rehabilitation. The psychotherapist should closely observe and often comment on performed functions with the patient because it is of help very much by teams dementia, dementias or depressions co-occurring with given illness. Just enough of achievement of the programme therapeutic the sick person should learn maintaining a balance in all basic positions of the body. For the achievement of this aim it is possible to apply the rehabilitation equipment of different kind like e.g. pads sensomotoric or rehabilitation balls. [7]
The physiotherapist should pay attention even to the lowest kind of contracture. Every contracture in combination with the myasthenia is leading mobilities at a fast pace to the restriction, not to say to the total powerlessness of independent bringing up oneself. During rehabilitation should concentrate not only on muscles directly touched with the spasticity, but also on of these attacked regions being in the vicinity. One should remember that in the spasticity we are beginning exercises with big joints and then we are going to smaller. In case of patients with the myasthenia he belongs make attention, whether the sick person isn't threatened with bedsore. [7]

A move is a load-bearing middle of physiotherapy: both active, conducted independently by the patient and passive, at of which a psychotherapist is helping the performance.

Parkinson's disease and Sclerosis Multiple are illnesses very much moved close in terms of rehabilitation proceedings. A prevention of contractures and a learning of new motor standards are main pillars of streamlining sick persons needed for independent advising oneself in the everyday life, and through the development which illnesses were lost.

Together for these disease entities it is possible to apply motor streamlining under the figure: - of respiratory exercises - of exercises passive - active, active - depending on the stage of illness and muscle strength of the patient - of equivalent exercises - learning of the walk - of coordinating exercises - of exercises with the music - of exercises in the bedpan - of massage - in case of the multiple sclerosis every type of respiratory exercises is shown the hippotherapy. Contractures and the weakness are also touching the torso and muscles of the chest and the diaphragm. The lack of the move is leading work outputs of lungs next to the reduction. Regularly performed respiratory exercises are hindering progress of illness in this direction. Apart from that they have preparing character for conducting other stages of physiotherapy. One should draw respiratory exercises up this way so that the patient can carry them out also independently. [10]

In physiotherapy proceedings also a hydrotherapy will matter greatly. Move in the water or even - if it is possible - swimming are an essential part of physiotherapy. The patient, suffering incessantly to disruptions of the balance of the body and contractures, during hydrotherapy has feeling the greater confidence and the control over its body, because water is curbing sudden and unchecked movements. [7]

Moreover sick person being in the water, losing weight seemingly, he can move with the much greater easiness than usually and less power needs the body for keeping its balance. That is performing exercises in the water, the patient experiences the better effectiveness of his effort. The move in the water constitutes the soundness of the preparation for typical more difficult therapeutic exercises. Also a hippotherapy constitutes valuable supplementing classic methods of
physiotherapy. Horses should however belong to calm, so-called "cold-blooded" of races (e.g. hucul, or icelandic horses). They must also appropriately be trained. [4]

Exclusively specialists can conduct therapy, and the patient all the time must be under control. The ride on the horse is a very pleasant experience for the sick person. He reduces muscle tensions, helps keep his balance, reinforces the self-confidence and motivation for the follow-up work. The participant in classes sits on the horse without using the snare. In this way the movement of the animal is transferred directly to the rider. One should also emphasize that very contact with horses already influences the majority of sick persons refreshingly and soothingly. [8]

During the rehabilitation in both illnesses we aspire to like biggest become independent of patient by stabilizing a standing position and improving the race walking. Teaching comprehensive motor programs what is characterized by synchronizing more than one move, what is of help in a performance of activities of the self-service and the everyday day. Through verbal commands we teach the mechanism automating moves.

Main principles of joint rehabilitation proceedings in Sclerosis Multiplex and Parkinson - active keep fit exercises should be begun already at slight disease symptoms and conducted in the consistent way - it is necessary to select exercises individually to the state of the patient - one should update the exercise programme in accordance with the needs of sick person - exercises are conducted so that an alternating diagonal tension and relaxing muscles take place. One should always involve also not-attacked groups of muscles and healthy parts of a body - we always start with the simplest exercises and gradually we increase of melting of the problem - if only it is possible, the patient should exercise on the tough basis (not in the bed) - extremely a cooperation of the patient is significant from very beginning of physiotherapy - through exercises the patient should get certain practical abilities, so as: socializing from the side aside, sitting on the edge of the bed with legs left to the floor, walking with the help or on one's own, the independent food.

During the rehabilitation in Sclerosis Multiplex illness one should very much cautiously get some more burdening becoming streamlined, because too fast desire for the assistance can take the different effect back by the degradation of the patient as well as losing had still functions. At the part of persons suffering from the multiple sclerosis permanent disruptions of feeling stimuli through hands and feet not to say the entire hands and legs appear. Sick persons of feeling tingling in limbs which seem simultaneously cold, heavy and insensitive to all impulses. Distinguishing is a great difficulty hot and cold and acute and blunt. Therefore during the rehabilitation e.g. a mug overloads itself with special pads so that in this way objects are heavier and simpler in using for the sick person.
With something characteristically in motor streamlining in both illnesses is different learning of beginning the movement in the disease of Parkinson, because these patients just have a considerable problem with it, and in Sclerosis Multiplex he isn't so noticeable. The help in beginning the movement can be through the verbal command through the chosen point on which the patient focuses and aspires to it, be e.g. forced through the obstacle or triggered with electric stimulus which the contraction of leg muscles causes. Proceedings kinesiotherapeutic in the Alzheimer's disease doesn't include many fields of streamlining the sick person this way like in two higher discussed disease entities apart from the advanced stage of illness, in which the patient is a lying person. It results from different aims of streamlining in these illnesses - because Alzheimer leads surroundings to cognitive disorders, but so firmly n doesn't influence organism in terms of restrictions as physics as Parkinson or Sclerosis Multiplex. similar symptoms can in this illness appeal to the Parkinson's disease manifesting itself with fremitus of limbs, but it isn't frequent, therefore the rehabilitation of such patients exactly isn't characterised, and it is hard to predict, what direction illness will pick. Mainly are these are people which alone move, but their disability consists in memory disappearances, dementia and dementia. When illness is a stage already in the advanced of course they aspire to for counteracting of contractures and bedsores, if the patient is lying. Here the strong emphasis lies down for making the everyday life of the patient easier by using slips of paper e.g. with inscriptions, what, where is, applying the electronic clock, when there are problems with reading the hour to the end, applying big vessels, of mugs, one should avoid moving the thing at home and not ask sick persons problematic, complicated questions in order not to trigger stress situations at them, problematic. In the fight against disorders e.g. a big wall diary, on which the sick person will be able to mark dates is of help to a memory.

Aims of curing teams dementies there is an improvement in the scope: Possibilities of the cognitive behavioural disorder functioning of the everyday day.

The rehabilitation consists in making the everyday life easier by performing given functions systematically and in the same time e.g. settling physiological needs before meals, in front of the bed. One should give clear commands to the patient and often repeat. He is very important, in order to not plaintiff's of stress situations and not luxurious for the patient because of May they disturbed cognitive perception and badly situations often interpret data. As for exercises there are no specified special therapeutic exercises for the Alzheimer's disease. Streamlining should individually be fitted for the given patient and of his stage of illness and isn't based on general-developmental keep fit exercises keeping the mobility in joints.

Exercising being in the position on the back Ob River upper limbs under the head, a right/ left lower lower limb is straightened, left / right lower lower limb remains bent in the knee. The pelvis on the
side of the bent limb stays raised all the way to the extension in the hip joint. Move of the passage from lying on its back to lying on its stomach Ob River lower limbs are bent and arranged on right / nearside. Shoulders are straightened arranged above the head. Laws / left upper limb confers the dash, the head stays raised and rotated, the shoulder stays transferred aside of put lower limbs. The assault should be so big so that it comes off to achieve putting aside. After leaning one hand, both lower limbs they are being erect, next a remaining part of a body is rolled, all the way to the position on the belly.

**Stretching exercises**

Every of stretching exercise should be held, for at least 10 seconds.

It will stand up by the table with hands leaned against the table top (straightened squares). The sick person straightens upper limbs out in an elbow joints, a weight moves bodies ahead what increases you will stretch muscles.

Of training in illness the multiple sclerosis Learning of the walk the sick person exercises walking using railing, on which he finds support in both hands during put of steps.

Of training in lying on one's back - passive exercises – active -passive the patient lies on his back on the tough basis. Legs are straightened, hands sit down along the body. The psychotherapist catches with one hand from the bottom exercising the foot, second leans against his knee. Next cautiously he raises the leg of the patient in the direction of his chest, bending I simultaneously in the knee. Return to the home position. After repeated repeating the move a change of the leg takes place.

Equivalent exercises patient sits on the therapeutic ball. Psychotherapist standing by the patient helps him conduct exercises of the balance. At first exercising holds on with both hands of the ball, but feet leans against base. They next proceed to more difficult exercises and reduces the support, raising hands and legs one by one.

In the Alzheimer's disease of training our memory we perform exercises with the patient set of exercises supporting the process of remembering, associating reconstructing and teaching. With important means of exercising the memory of the sick person, and at the same time pleasing him, providing for him different intellectual and manual classes is. Sick persons like to press something in hand, it is possible, so to give them the handkerchief, the ball or scraps of materials. With fitter sick persons it is possible of garden hoes into cards, dominoes, to mould plasticine, to complete building blocks, to draw and the like. Some sick persons can also do straight quizzes or crosswords. [12]

General developmental exercises it can be straight, not strenuous the gymnastics, walks in the flat, but first of all walks in the fresh air, which both they deliver classes and are the source of
sustaining the health. Prompted sick person - after the long walk will be worn out more and calmer, better will also sleep. [8]

Conclusion

Rehabilitation is joint for all three units since is supposed to serve both for the patient would be like longest efficient and self-sufficient for service mentioned above of everyday functions. In the process what fitter patients will be it in all three disease entities with will constitute the smaller load to the service of persons looking after or the family.

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