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Modern nursing care of the patient affected Parkinson

Współczesna opieka pielęgniarska nad pacjentem dotkniętym chorobą Parkinsona

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Summary

Parkinson's disease or shaking palsy is one of the most frequent degenerative diseases of nervous system which concerns extrapyramidal system.

The thesis shows nursing work during long term care which involves health p\ roblems and social, cultural and educational conditions of patients and their families. If we talk about medical care and Parkinson's disease patients the biggest problem is professional care in patients' habitat, mainly in their homes or special care centres. Nurses' qualified and care skills and their professional help make possible to supplement therapy, rehabilitation of older patients, chronic patients, physical and intelectual disabled people and patients with

mental disorders. There are also conditions to create self-care and self-nursery which are improved all the time.

The main source of nursery problems with this disease are motor and vegetative symptoms, motor complications and mental reaction for progressing disease. The aim of nursery care is to help the patient to stay independent as long as possible, to satisfy needs, to make mental and physical adaptation easier, to understand and accept the disease and to support patients so the social isolation would not increase.

Słowa kluczowe: parkinsonizm, opieka pielęgniarska, opieka długoterminowa

Keywords: parkinsonism, nursing care, long term care

Introduction

Parkinson's disease meets mainly older people which means that we need more long term care. Apart from it this care depends on changes in demographic situation of the society, the situation that nowadays people live longer and the number of deaths in each age category is smaller. The health situation of society, changes in family structure and their functioning and their economic situation make people more interested in forms of long term care.

The aim of the thesis is to show the way of taking care and rehabilitating people who suffer for Parkinson's disease.

Etiology and diagnostics of the disease.

Parkinson's disease (PD) belongs to the group of neurodegenerative diseases and it happens when people are older. There are 60-70 thousands ill people in Poland. It is 1.5% of population above 65 years old. The disease usually starts between the age 50 and 60, although it can be met among younger people. There are more ill men than women.

Parkinson's disease is a degenerative disease of unknown base. It is connected with subcortical nucleus, especially with black substance. In the black substance there are neurons which produce dopamine. It is a neurotransmitter which is responsible for coordination of moving activities. During Parkinson's disease these cells die and it leads to decrease of dopamine system activity and then to balance disorder of many neurotransmitter systems in nucleus base and its connections. There have been some research nowadays and they have showed that there is a lower level of dopamine in subcortical nucleus of dead people who suffered for the disease. When the level of dopamine is lower there is less influence of the black substance on motor activities and the symptoms of the disease begin. Pathogenesis of the disease is also connected with other mediators, receptors and neuronal systems such as:

GABA, serotonin, glutamine acid, enkefaline. The reason of cell degenerating of extrapyramidal system is unknown. There are some connections with genetic factors, free radicals, infections or even with poisoning. The symptoms of the disease appear when about 50% dopamine cells are destroyed and the level of dopamine is only 20%.

Clinical symptoms.

There is a long disease period without serious symptoms – there are only some symptoms which can increase the risk of the disease:

- hyposmia – smell weakness,
- depression episodes,
- constipations,
- sleeping disorders in REM.

Main symptoms:

1. Motor disorders (bradykinesia):

- disorders in movement initiation, slowing down and decreasing the amplitude of movement during the repetition
- disorder of mimical facial movements,
- lack of synkinesis,
- slowing down of the speech.

2. Body figure disorder (flexed):

- shoulders are bent forward, elbows are away from the body, bent arms, bent legs. The body can be bent towards advanced side,
- the body is bent.

3. Symptomatic tremor at rest:

- fingers,
- legs, head.

4. Ambling walk with small steps:

- propulsion – tendention to falling forward, inability to stop, sometimes the walk is changed into the run,
- retropulsion – tendention to falling backward,
- lateropulsion – tendention to falling into the sides,
- feet touch the ground all the time.

5. Increased muscle tone:

- cogwheel sign,
- „lead pipe” (constant resistance against bending).

6. Micrography (the change of handwriting).
7. Restless legs syndrome.
8. Congelation during movement.
9. Extramovement disorders:
    - Neuropsychiatric – depression, dementia, fear, apathy, behaviour disorders,
    - Autonomic:
      - sialosis,
      - increased sweat secretion,
      - paroxysmal sweats,
      - intestine disorders and constipations,
      - frequent micturition or urinary incontinence,
      - impotence,
    - Sleeping disorders – difficulties with falling asleep and sleeping fragmentation, increased sleeping during the day, sleeping disorders in REM,
    - Others – pain, diplopia (double vision), hiposmia (smell disorders).

Stages of advanced disease

Characteristic beginning of the disease is connected with following symptoms:

- Fitness worsening – slower movements of a lower or upper limb, usually on the one side of the body, the feeling of muscular rigidity, micrography, spontaneous movements.
- Tremor – in the beginning stage it is discreet and one-sided. It is stronger when people do not think about activities; it is weaker during precise movements. It is mainly connected with fingers and hands, it can be stopped by strong will. It is tremor at rest.
- Slowing down – it can be noticed in slower reactions, difficulties with the beginning of movement, limited mimical facial movements, slowing down the walk.
- Body figure and balance disorders – Bendig the body figure is very characteristic.

In the stage of developed Parkinson's disease slowing down could be much stronger and the patient could be congelated and is unable to move without the help of other people.

The late stage of the disease is connected with many complications. There are disorders of speech, deglutition, vegetative, sleeping, mental disorders, congelation, less efficiency of cures, dizziness, inconstancy, broken femoral necks as a result of falls and symptoms connected with long term therapy: movement fluctuations, choreic dyskinesia, dystonia, sorter time of cure efficiency or cure inefficiency.

Parkinson's disease develops slowly but it leads to complete disability. Its development can

be very fast or not, with symptoms which do not develop for a long time.

Stage I	One-sided symptoms; no clear influence on patient's daily functions and no clear fitness disability; about 3 years
Stage II	Bilateral symptoms but much bigger on the side where the disease started; typical clinical symptoms: hypomimia, hypophonia, inclination forward, fisiological synkinesis and walk disability; about 3-4 years
Stage III	Clear bilateral symptoms with posture reflexes disorders, a patient still independent in daily life but makes a lot of things with difficulties and much slower; it can last many years
Stage IV	Vital fitness disability, a patient is dependent on monitors, Leeds help with many daily activities, is able to stand and walk but there are falls; it can last many years
Stage V	A patient is dependent on monitors, usually sits or lies, is able to walk but with much help of monitors

Treatment.

As we do not know the etiology of Parkinson's disease we use symptom treatment. The main aim of this treatment is to soften symptoms, to prevent psychiatric symptoms and to slow down the development of the disease as much as possibile. Treatment is chosen indyvidually for each patient. Using pharmalogical treatment we take medicine which can only soften the symptoms or to slow down the disease development. The vital thing in the first stage is pharmacotherapy based on increasing dopamine stimulation. The most efficient therapeutic medicine is lewodopa – it should be taken for empty stomach or after a small meal without protein. The second group of dopamine medicine are dopamine agonists. They work directly for dopamine postsynaptic receptors. Other medicine which is used: inhibitors of monoamineoxidases type B and catechol-3,0-transferase. We can also use non-pharmalogical treatment: treatment exercises and fitness, doing some sports, physiotherapy, proper diet, psychologist's help, patient's education and help to live with this disease in the society.
Surgical interventions can't substitute pharmalogical treatment. However, they can be used in therapy, especially for patients with stronger tremor who do not reach for conventional treatment. Possible surgical interventions:

- Stereotaxis – it is selective destroying (ablation) or blocking (by permanent electrical stimulation) certain activities of subcortical nucleus.

- Deep brain stimulation – an electrode is insertem into subcortical nucleus and it blocks the functions for some time.
- Transplant of fetal dopamine neurons is still being developed.

Therapeutic activities

Rehabilitation and physiotherapy are very import ant therapeutic methods when we talk about Parkinson's disease patients. Rehabilitation should stop the reasons of akinesis, it should teach proper habits and actions and it improves the speed of reflex reactions and leads to increase the muscle strength. The movement helps to overcome constipations and improves actions of external organs.

Rehabilitation methods:

- kinesitherapy
- physiotherapy (Solux lamp, hydromassage, iontotherapy)
- external stimulation which uses auditory, visual and tactual stimuluses.
- logopedics exercises
- ergotherapy
- psychotherapy.

Nursery and care actions

People who suffer for Parkinson's disease need constant care. Relatives usually become monitors but they are not prepared well. This care is very diificult because there are a lot of aspects. There are a lot of monitor's tasks:

- to provide proper amount of movement,
- proper pharmacology
- to soften daily activities – help in getting dressed and undressing
- to assure safety and privacy
- observation of patient's skin – reddening, rash,
- helping in preparing and eating meals,
- helping in changing the body position in the bed and in moving, taking him to the toilet, dining room, additional therapeutic and rehabilitating activities.
- helping in falling asleep and and assuring him non-disturbed sleeping.
- determining the circadian rhythm.

Nursery and care activities are very important in parkinsonism and quality of patients' life without these activities would be full of pain. The aim of nurse's activities is to make daily activities easier but the most important rule is not to do such activities which the patient could do without any help as long as it is possible.

During the early stage of the disease patients usually take care of personal hygiene and appearance themselves. We should not do these things for them, we can sometimes help and to assure them safety and privacy. If it is necessary the nurse can help in getting dressed or undressing. The nurse watch the patient's skin (if there are some reddening or rash) and tells the doctor about changes. The nurse helps to prepare and to eat meals, show the patient some helping equipment. She can help to change the body position in the bed, to take him to the toilet and dining room or to additional therapeutic and rehabilitating activities. It is very importang to give him a lot of sleep, to make falling asleep easier and to continue sleeping without any breaks. She should determine the circadian rhythm and to entourage the patient to increase his fitness activities during the day.

Parkinson's disease eliminates the patient from daily life slowly, he is unable to do the easiest activities and becomes completely dependent on nursery and medical staff. The nurse should provide him all possible prophylactic activities.

Nursery and care activities are very important in parkinsonism and quality of patients' life without these activities would be full of pain. The nurse and the other staff should make the atmosphere of support and understanding.

Prophylaxis of falls and injuries

The risk of falls in Parkinson's disease is ten times bigger than in other neurological diseases. Body injuries can lead to disability and akinesis so we should do as much as we can to prevent these falls.

The nurse builds the safety taking part in daily activities and she helps to fight with architectural barriers. She can provide special and proper equipment: a walking frame, a wal king stick, a crutch, orthopedic shoes, hip pads. The level of fitness in Parkinson's disease is getting lower slowly and the patient has to wait for other people's help and it is a very depressing situation for him.

Another very important thing in prophylaxis of falls is making prosthesis of sight and hearing (glasses,hearing aid) to improve sight and hearing control of the body.

It is obvious that we can not avoid the falls in patient's daily life but we should pay attention and to help people with posttraumatic syndrome because they are afraid and they could stop moving.

Disability which is a result of Parkinson's disease disturbs patient's emotional balance, reduce his confidence and he becomes dependent on other people. And the nurse should make him active, to support him, to increase his confidence and to overcome the fear connected with this disease. She should recognise unpleasant factors which make the patient frustrated

or aggressive.

To prevent such an aggressive behaviour we should accept all needed behaviour and appreciate even very small achievements, create proper tasks being in harmony with the patient's health, avoid excessive efforts and prezent the compensation of lacks. In case of aggressive behaviour nurse's reactions should be calm but decisive. It can be sometimes the change of topic, a smile or to pay patient's attention to something else. We must not threaten, punish and make the patient afraid. Nurse's behaviour should be full of empathy, acceptation and respect..

Being with the patient until the end.

Death is an unavoidable stage of life. Being with the patient In this last part of our life is a very hard experience, it is being with him and the pain together. The symptoms of death are: progressive emaciation of the body, lack of appetite, weakness, lose of weight, disturbances of awareness, excessive sleepiness, low arterial blood pressure, faster heartbeat. Taking care in these hard moments should be full of empathy and respect for the patient. The nurse is prepared for work in these circumstances. She makes a lot of things until the end: measurements (arterial blood pressure, pulse, breath, temperature) and all doctor's orders (gives painkillers, in the case of fever – she lowers temperature, gives antemetic medicine).

Taking this care she is needed all the time, she gives the patients drinks, she moistens his lips. She must tell all the members of the family that this person, despite dying, is aware and he can feel or hear words and gestures.

Conclusions

The nurse is a very important person in treatment, taking care and rehabilitation of the patient who suffers for Parkinson's disease. She is often the person who listens to doubts and problems so it is very important for her to have proper level of knowledge – she should know the disease, its treatment so she could tell the information to the patient and family.

The nurse should propose the patient simple exercises which let him to be fit longer and she should encourage him to be active in family and social life.

She should also show the patient how to deal with everyday challenges – walking, sitting down, getting up or eating.

She should tell him about non-pharmacological methods of treatment and still encourage him to do physical activities and healthy lifestyle.

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