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Use of recreational activity as one of the methods for treating urinary incontinence

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Summary

Urinary incontinence (UI) is characterized by an involuntary leakage of urine due to bladder dysfunction of the locking mechanism and is an important social problem. It is estimated that in Poland this disease affects over 5 million people. According to recent data UI affects women twice as often. This condition occurs in about 25% of women of childbearing age and up to 50% in postmenopausal women. In most cases, patients suffer from a form of stress urinary incontinence (SUI), which is a cause of lowering the interfacial tension perineal muscle, fascia, pelvic floor, and the loosening of connective tissue. Other, less common types of urinary incontinence include urge incontinence and overflow incontinence. Frequently it is diagnosed as mixed forms of incontinence.

The main role in the treatment of urinary incontinence should be conservative treatment. Patients taking physical activity significantly speed up the treatment of

urinary incontinence. After the therapy and only through physical activity it is able to sustain the effects of treatment and to enjoy life free from symptoms of NTM.

Keywords: urinary incontinence, recreational activity, exercise, seniors, physiotherapy

Introduction

Rapid social development and contributes to social sedentary lifestyle more and more populations. This is due primarily sedentary nature of work, too frequent use of the car or the lack of time on basic physical activity. This trend is particularly evident in the elderly, who often spend their free time watching TV, and switch from sports. These factors primarily the weakening of the overall capacity of the body, muscle weakness and bone, and also disorders of respiratory and circulatory systems. The result is the emergence of numerous pathologies and dysfunctions that affect a significant reduction in quality of life. One common problem that affects women is incontinence. Current data indicate that it is 46-60% of the female population [9].

Urinary incontinence is an important social problem. It is estimated that in Poland this disease affects over 5 million people. According to recent data UI affects women twice as often. In men, the most common cause of this ailment is the treatment of radical prostatectomy. Urinary incontinence in these patients is caused by damage to the sphincter muscle and according to some source occurs in 100% of patients treated with radical prostatectomy. Consequently, 30-40% of patients are forced to use hygiene products in the form of inserts or nappy pants. Moreover, aware of their limitations, helplessness and embarrassment often withdraw from social life [14].

Awareness of women regarding this disease from year to year increases. Nevertheless, many patients still regard it as a natural symptom of aging. This condition occurs in about 25% of women of childbearing age and up 50% in postmenopausal women. Urinary incontinence in a negative impact on many aspects of life, daily functioning significantly reducing work-related occupational, physical activity or intimate sphere. Very often a person suffering from this ailment are withdrawing from working life and

society, which in turn contributes to the deterioration of their quality of life. Due to the fact that society is aging in Poland, the number of patients will increase steadily. With forecasts presented by the CSO in 2030 the number of people over 80 years old will double compared to today and reach 2 million. The fight against disease will require the development of effective treatment and standards of a customized medical care provided by an interdisciplinary team of experts from different fields [18].

In most cases, patients suffer from a form of stress urinary incontinence (SUI), which is a cause of lowering the interfacial tension perineal muscle, fascia, pelvic floor, and the loosening of connective tissue. Other, less common types of urinary incontinence include urge incontinence and overflow incontinence. Also frequently diagnosed as a mixed urinary incontinence. It plays an extremely important appropriate diagnosis since it only allows a correct diagnosis comprising both the type and the degree of disease. Obtaining this information is necessary to plan further action. The first and very important part of the diagnosis should be interviewed. For this purpose, a special questionnaires, which indicate what type of incontinence occurs in a given patient and the disease process is very pronounced. Also it plays an important neurological examination and analysis of voiding diary. The test, which is used to assess the type of incontinence is called Sanitary pad test or the modified one-hour test [13].

Treatment of urinary incontinence should include lifestyle changes, the elimination of risk factors, drug therapy and physiotherapy. Only when these methods are ineffective recommended to implement the surgical treatment [4].

The aim of the study is to characterize the problem of incontinence and to provide physiotherapy techniques which are used to treat that showed their diversity and the effect on the body.

Definition and types of urinary incontinence

International Society Affairs. Continence (ang. International Continence Society - ICS), urinary incontinence is defined as involuntary, uncontrolled leakage of urine. This definition in force since 2002 and the previous one is different in that this phenomenon does not need to be supported by documentation and tests. It is not necessary also causing discomfort and hygienic social. ICS The present report indicates the need to expand this definition, which It should also take into account:

additional symptoms, incidence, risk factors and impact on health and quality of life. Changes is primarily aimed at changing the perception of the disease and help decide on the appropriate form of treatment. Clarification of the definition also facilitate the exchange of information between therapeutic [15].

Basically, there are five types of urinary incontinence. Nevertheless, there are scientific reports and those that qualify patients with NTM only three groups. They are indicated then: Stress incontinence, urge incontinence type and form of mixed urinary incontinence. For the classification of the five groups also indicates the overflow incontinence and transient incontinence. Various types can be characterized as [6]:

- **Stress urinary incontinence (SUI)**- by some authors constitutes from 50 to 88% of all types of urinary incontinence. It is characterized by leakage of urine due to an increase in abdominal pressure, which may occur as a result of sneezing, bending or lifting weights. Arises from the weakening of the pelvic floor muscles and Camera failure musculo-ligamentous-fasciocutaneous. Extremely often it is the result of childbirth, injuries, endocrine disorders, and reproductive organs and reduction of the operation. according to Sundberg'a (2003) saying, of stress urinary incontinence must distinguish 3 degrees of advancement of the disease, which indicate the extent of the effort causing symptoms. These are:

- Stage I - symptoms occur during a major effort, which causes an increase in intra-abdominal pressure. Excluded are sneezing, coughing or laughter

- Second stage - the symptoms appear during the Intermediate exercise such as running, lifting weights or sport and cause a moderate increase in intra-abdominal pressure

- Stage III - symptoms observed with a minimal physical exertion and weak growth in intra-abdominal pressure. outflow of urine one can see during the march or change position lying.

- **Type urge incontinence (UI)** -It is caused by imbalance between inhibitory and excitatory mechanisms detrusor activity which resulted in a disorder of micturition. Scientific reports show that those suffering from ailment 17.4% women and 15.6% men. The most common causes include:

- CNS damage above bridge - causing detrusor overactivity while reducing the capacity of the bladder. Most often it is the result of a stroke, dementia and Parkinson's disease
- spinal cord injury at the level of S2-S4 - it is at this level there is a micturition center. In case of damage to the patient loses the ability to reflex emptying. The bladder is autonomous in relation to the nervous system. Loses the ability to effectively shrink causing urine retention
- spinal cord above the level of the S2-S4 - urination reflex depends from the cross. The bladder shrinks quite effectively, however, is done unconsciously and unexpectedly [12]
- **Overflow incontinence** - symptoms appear when the bladder accumulates the urine volume greater than the maximum capacity of the bladder. Then, the pressure causes the urine "plop" through the urethra. This situation may occur as a result of the existence of obstruction for example, prostatic hypertrophy or in case of disturbances neurological.
- **Figure mixed urinary incontinence (MUI)** - a combination of symptoms of stress urinary incontinence with overactive bladder
- **Transient incontinence** - symptoms are short-lived

The existence of predisposing factors incontinence

Given in the literature are many factors that can affect the occurrence of urinary incontinence. In Caucasian women as the main cause of the disorder, lists shorter urethra and the pelvic floor muscles of a weaker less.

Among the factors that undoubtedly conducive to the emergence of incontinence stands out [1]:

- a plurality of deliveries have the greatest impact here vaginal births and high birth weight children - more than 4 kg
- operations within the abdominal and pelvic, mainly gynecological operations, and above all the removal of the uterus
- obesity (BMI > 30)
- The aging of the body

- chronic respiratory diseases. I mean mainly those running with a cough, which causes an increase in abdominal pressure (e.g. Obstructive pulmonary disease)
- chronic constipation, recent reports suggest a common etiology with bladder dysfunction
- administration of certain drugs, e.g. diuretics, antihypertensives, anxiolytics [2]

Treatment of urinary incontinence

In 1954 he founded International Society for. continence (ICS), which develops standards for the diagnosis and treatment of urinary incontinence. According to the guidelines offered in a ICS reports a major role in the treatment of incontinence should detach conservative treatment based on physical therapy, and pharmacotherapy. Surgical treatment should be considered only in case of severe disease. The basis for proper run physiotherapy diagnosis is carried out thoroughly. Diagnostic tests allow to evaluate the functioning of the lower urinary tract and selection of the best treatment. They also allow you to evaluate the effects of treatment and quality of life of patients. In order to make a comprehensive evaluation of the function of the lower urinary tract be interview, analyze voiding diary, physical examination and urodynamic. In recent years, an unusually large popularity in the diagnostic imaging of urinary incontinence also gained ultrasound [7].

The guidelines of the International Society for. Continence clearly indicate that the treatment of urinary incontinence should begin with the application of methods most secure and least invasive. Recent scientific reports underline that belongs to them primarily physiotherapy. Properly selected physiotherapy methods result in a significant improvement or even complete reduction of symptoms. In a situation where physical therapy is unsuccessful due to the severity of the symptoms of its use increases the chance of success of surgery.

Among the methods of physiotherapy stands out [8]:

- exercise pelvic floor muscles
- biofeedback (biofeedback)
- electrical stimulation of the pelvic floor muscles
- Bladder training (behavioral therapy)
- stimulation of an alternating magnetic field

- sonofeedback

By the basic method of physical therapy applied in patients incontinence is considered pelvic floor exercises. Among the most effective exercises include step-enhancers also known as Kegel exercises, named their originators. Pelvic floor muscle training is recommended for the treatment of all types of urinary incontinence and at all stages of the disease. As a result of the training record correctly made to weight and muscle fibers to change their nature -with slow-twitch to fast twitch and vice versa. In addition, exercises result in improved blood flow and expansion of the network of capillaries, which in turn leads to better nutrition muscle. They also help enhance muscle strength, extending the maximum time of contraction, improve neural control, as well as to improve proprioception. As a result of regular training hypertrophy occurs, which in turn supports the processes of reinnervation. As time improving the coordination and there is pressure to increase centre urethral, which in turn allows to eliminate unintentional outflow of urine and reduce abnormal reflexes worsening symptoms of incontinence [16].

Pelvic floor muscle training is necessary, because it is these muscles are responsible for maintaining pelvic and control bladder and bowel function. In addition, they play an important role in the stabilization of the spine, hip joints. Also partly responsible for the tension of the abdominal muscles. Properly executed training also leads to the restoration of lost habits of growth in intra pressure e.g. When you laugh, cough or sneeze. By introducing your exercises Kegel in 1948 he received an improvement or cure in up to 84% of patients qualified for the study [17].

Recreational activity and urinary incontinence

Kinesitherapy in patients with urinary incontinence should include first of all pelvic floor exercises and lower both in form free exercises, biofeedback or with accessories. It is essential that the exercises were carried out in the correct manner. Therefore, it becomes invaluable role of patient education in the basic principles of substantive physiotherapy, and above all in the field of science proper perception of muscle groups or breathing exercises. Very important is the continuous motivation of patients [5].

Each exercise should consist of the initial phase, the main - consisting of exercises to increase strength muscle and extending the time of the maximal contraction and

strengthening the muscles of the trunk, and the final phase - that performs the breathing exercises. Exercises should be performed in different body positions, so as to lead to the ability of muscle tension in any situation. Kinetic therapy in patients with NTM should include [3]:

- isometric exercises;
- active exercises;
- active exercises of resistance;
- breathing exercises;
- exercises in water;
- generally modifying exercises in the form of recreational activity.

It is generally accepted that the first 5 types of exercises should be performed under the supervision of a trained physiotherapist. While generally modifying exercises in the form of recreational activity should be a complement to physiotherapy conducted in physiotherapy practice. Especially activities of the recommended are: walking or Nordic walking, swimming or aqua aerobics and cycling [16]

- **Nordic walking** - This is brisk walking with poles, which causes muscle strengthening stabilizing torso, and so the muscles of the pelvic floor and abdominal muscles. Working properly adjusted to relieve arthritis, rapid burning calories and improving physical condition. It can be cultivated by all irrespective of age, sex or severity of disease.
- **Aqua aerobics** - exercises in water involve many groups muscle this does not overload the body. They allow patients to perform exercises that the land would not be able to do. They also help you feel better and have a better silhouette.
- **Cycling** - Training on the bike involves primarily leg muscles. However, also it affects beneficial for strengthening the pelvic floor muscles and the abdomen. It helps in fat loss and a pleasant leisure activities.

Sets of exercises used in patients with urinary incontinence are extremely diverse and should be selected individually for exercising options and preferences. They must be an essential element of motivation and commitment to patients, because they are the ones largely affect treatment efficacy. It is important that even despite the latest

treatments do not give up the physiotherapy, which is not only in itself therapeutic benefits, but is also an extremely valuable supplement even the latest techniques. Patients taking physical activity significantly speeds up the treatment of urinary incontinence. After the treatment only by the physical activity is able to sustain the effects of treatment and enjoy life free from symptoms NTM [10].

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