

# NURSING THE PATIENT WITH HIP ARTHROSIS

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**Abstract:** *Hip arthrosis is one of disabling illness affecting mostly the patients older than 40 years old, and its frequency doubles with the age. It affects both genders almost equally. The general purpose of all forms of treatment is to break the evolving pathogenic chain of arthrosis and to create the necessary conditions for join rehabilitation. In 21<sup>st</sup> century in Romania most of the patients are operated in very advanced stages of the degenerative disease and those patients are hospitalized for a long time in many cases (15, 18 to 21 days).*

**Key words:** *hip arthrosis, rehabilitation.*

## 1. Introduction

Each human being should learn and use the knowledge about health and disease, remember what is good or bad for his health and apply all medical advices in the benefit of his health. It is not enough to receive simple information or to satisfy a curiosity, so the purpose of this paper is to convince about the importance of the lifestyle in disable patient.

This paper would not achieve the purpose if just the informative aim will be achieved thus the educational objective and practice experience are the main goal.

A patient should never be in the situation of the poet Ovidiu who blames himself in one of his writings: „Video meliora proboque, deteriora sequor”; „I realize and approve what is good but I still follow what is evil” (Metamorfoze 6, 20).

Actually, the basic objectives of this paper are to inform, to educate, to convince, to treat and to care.

Diseases evolving to a slow and continuing worsening of the healthiness bring special issues of nursing in hospitals

and at home. Movement affecting in the daily life shows the most dramatic side of suffering: turning into a depending person.

Hip arthrosis is one of disabling illness affecting mostly the patients older than 40 years old, and its frequency doubles with the age. It affects both genders almost equally.

Analyzing the elements that cause the disease allows dividing hip arthrosis in two separate groups: primary hip arthrosis (or idiopathic) and secondary hip arthrosis.

## 2. The Secondary Hip Arthrosis

The disease evolves mostly on a hip (coxo-femoral) malformation, but the cause can also be a traumatic lesion of the joint, or even an aseptic necrotic lesion of the femoral head.

Coxo-femoral malformation dominates the etiology of hip arthrosis with 40%, is more frequent in women and has an hereditary or familial character. This a minor form of the congenital strain of the hip but there are a large variety of intermediate forms. Because it is mostly bilateral, it evolves quickly on both articulations.

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The strain malformation is a very important cause of hip arthrosis and takes many forms from normal hip to discrete forms of malformation or slightly visible forms and is by there self the reason of an early diagnostic and prophylaxis. Very often, few months of abduction (for example wearing of diapers) could improve dysplasia in the discrete forms in the initial form, preventing further complications in the ageing process.

The risk of complications is low in children diagnosed and treated in the first months of life but in the case of undiagnosed patients, the dysplasia of hip is often followed by early and late complications. The medical care should be able to offer special attention to beginning of walking (between the 9-th month and the 12-th month of life) even for children who seem to be healthy. This period stands for an important moment in developing deficiency of the coxo-femoral join. The delay of walking or walking disorders are late clinic signs for a incomplete or complete hip sprain, in which case the doctor must be informed and a clinical and radiological exam should complete the evaluation.

### 3. Primary Hip Arthrosis

Hip arthrosis is primary, idiopathic or essential when there is any reason for his origin. It begins mostly around 60 years old, affects both legs and can be associated with arthrosis of other joints.

General factors mostly unknown cause this illness by destroying the cartilage's metabolism and causing premature usage of joints, subject of maximal effort (hips, knees, spinal column joins).

### 4. Treatment

The general purpose of all forms of treatment is to break the evolving pathogenic chain of arthrosis and to create

the necessary conditions for join rehabilitation.

The therapeutic actions' aim is the supression of pain and muscular contractions, as limits of the amplitude of the movement.

In case of a patient suffering of different stages of hip arthrosis the management of treatment combines conservative treatment with hygiene-dietary or surgical treatment with a dietary treatment and a complex plan of recovery.

#### 4.1. Hygiene-Dietary Treatment

Follows the next aspects:

- Patient education in the aim to avoid obesity and following a rational diet.
- Patient education to avoid fatigue and pains by avoiding standing, long walking, and lifting weights
- Teaching and helping the patient to use a cane or crutch, to discharge part of the affected joint, a useful but also always a wise measure.
- Help the patient to perform daily physical gymnastic, preferably to lie in a flat dorsal position to maintain maximum joint mobility
- Advise the patient to walk out in the open, short distance and on flat ground, avoiding rocky terrain, climbing and sloping descent.
- Educate the patient to ride a bicycle because as well treatment of hip arthrosis, exempting the support legs and body weight as an exercise for all joints
- Urge the patient to practice swimming and water movement on temperature of 36 ° C, with a sedative effect and positive reeducation. According with the patient capacity of effort the water resistance to motion can be changed by increasing or decreasing the speed of movement execution.

- Recommend to rest for half an hour every day, and to lay flat ventral to avoid installing the vicious fixing of the thigh.
- Muscles massage around the hip joint, ischio-gambier muscle, adductors, quadriceps and even the lumbar region muscles.
- Patient counseling in order to choose a job not requiring standing up for long time and avoiding cold and moisture.
- Patient counseling in order to choose an appropriate accommodation, which offer higher security by the absence of stairs, slippery pavement and the presence of special facilities: ramp for various surface irregularities, railings, and additional support in the bath, and shower.
- Educating or helping the patient during the self-care activities: dressing / undressing and putting the shoes on/off should be performed in sitting position, and teaching him to help himself by using the horn with handle to reduce the risk of an injury.

#### **4.2. Surgical Treatment**

Surgical goal is to remove the dominant subjective symptoms, especially recovery of compromised joint function. All the involved factors have a particular importance in choosing the technical solution of the surgery and they have been confirmed in determining the indications of surgical treatment: biological and physiological age, clinical form corresponding to radiological evolution stage and life-style.

Currently, the most used surgical method is the hip arthroplasty using the total non-cemented prosthesis for the patients under 60 years and total cemented prosthesis for patients over 60 years.

Arthroplasty means partial or complete replacing of a compromised joint in order to restore the mechanical performance of the joints.

The great benefit of arthroplasty is that transform the patient into a physically and socially independent person and this is a

useful fact for society. For this reason, most of the patients affected by hip arthrosis, accept this intervention.

Concerning the postoperative nursing there are two fazes following surgery: the early rehabilitation period (the first 5 to 7 days of admission into the hospital) and the late period (following 60 to 90 days, at patient's home).

#### **5. Special Care Given to the Patient with Arthroplasty**

The patient is usually discharged from the hospital at the end of the immediate postoperative period or early in the late postoperative period and he requires general nursing interventions (common for all surgeries) and special care (characteristic for hip arthroplasty and the type of implanted prosthesis, or patient age and general condition).

The functional recovery of the joint mobility and muscle strength needs special care and special restrictions. They are designed to educate the posture, the static and gait, to keep safety and performance and their aim is to gain a join as similar as possible with a normal hip.

The typical position for the patient in postoperative rehabilitation after arthroplasty is laying dorsal flat, with the legs slightly apart and the anomalous position is to lay flat on the healthy side with a pillow placed between the knees. Changing the position of patient in his bed has to be done every two hours, very gently and needs special trained skills.

The recovery will start early, 2 days after surgery, by carrying out passive movements in all lower limb joints at the operated leg and massage of thigh region, avoiding the incision. Also, from the second day, the patient is urged and supervised to make active movements of small amplitude in all other joins except the hip. The following days, gradually decrease liabilities and increase the complexity and amplitude of active movements.

Seated position is achieved by lifting the patient at the edge of the bed, with the feet resting on a stool or in an armchair. The nurse raises patient seated in the bed, and then, 3 to 5 days later after surgery, she helps the patient to sit at the edge of the bed. She also helps and supervises the conduct of active extension and flexion movements in the thigh, calf and advises to avoid prolonged flexion of the calf on the thigh to prevent swelling edema.

By suppressing the suture thread (14 days) the patient may not take a bath, but should clean his body region by region, followed by deep, but not brutally, massages of the wounded or necrotic regions, with diluted alcohol, executing circular motions for 10 minutes then there is applied some powder.

In order to prevent thrombosis, respiratory gymnastics is performed daily and anticoagulant medication is administered (type, dosage and administration sets the current doctor).

Cleaning and grooming the wound every two days, until the 14th postoperative day when the stitches are removed.

About after a week, under the strict supervision of the nurse, the patient stands up and makes the first steps with professional help. Cemented prosthesis, resuming support on the operated pelvic member is allowed in the first week, while the non-cemented prosthesis permits the foot support only after 3 to 4 weeks.

When the patient begins to walk after surgery, first he has to use walking frame (for 2 to 4 weeks), then with a pair of crutches with axillary support (next 2 to 3 weeks) and then with a Canadian crutch. The patient will use the support devices at home and then outside, until he will feel safe to walk without it. This moment is depending, from case to case, on the patient's age and on the initial severity of his dysfunction.

During recovery, the nurse will educate the patient to respect the following prohibitions: not crossing legs (to avoid heading "knee over knee") and do not bent his thigh on pelvis more than 90° (to avoid lifting his knees to the chest). These movements can

cause the sprain of the prosthesis in the first months after surgery but they must be applied the first six months after the arthroplasty.

In 21<sup>st</sup> century in Romania most of the patients are operated in very advanced stages of the degenerative disease and those patients are hospitalized for a long time in many cases (15, 18 to 21 days).

In most of Western Europe and the United States, the patient is not allowed to reach very advanced stages of disability and has surgery at the best moment to prevent his disability because of the high costs during hospitalization in the Orthopedics Department. Another advantage is that home care system is well set up, offices are properly equipped and the doctor and nurse are able to provide complex and high quality treatment and care.

Most of the hospitals in our country are crowded, patients' rooms have many beds and this is a serious factor increasing the risk of nosocomial infections. The benefits of home care system become obvious. Home and family environment, low risk of an infection, the stress caused by decreased pain and stress produced by reduced hospitalization are enough reasons for the patient to decide post-operative care at home. During late recovery the compliance to hygiene and dietary therapy, radiological controls and clinical evaluation to the orthopedist and following physiotherapy, balneal therapy and kinetic therapy are the guarantee for becoming a physical, mental and social independent person.

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