Old Age Fall and Its Consequences

Submitted by

Affiliation

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Old age always brings with it a lot of health problems. As a result, an older adult is no longer able to take care of himself. His family often do not have enough time for proper care. Besides, in many cases, professional knowledge and experience are needed. Therefore, the nurse is often the optimal solution for the older man. To ensure quality care, a nurse for senior citizens should have high professional qualities. It is required to know the basic care methods for various diseases of an age-related nature. Also, he becomes for his ward and assistant at home and just a friend with whom you can always talk, and older people often really lack communication and care.

**Case study**

Mrs H., 83, lived independently in a small terraced house on the outskirts of a small town. For a long time, however, she feels increasingly unsteady on her legs. When she gets up quickly or turns from the stove to the fridge, she suddenly becomes dizzy. She has already fallen several times at home but luckily no injuries except for an abrasion and a bruise on the buttocks. The family doctor has not been consulted, "because nothing bad has happened". And he advises a nurse who can take care of her. Mrs H. withdraws increasingly and is depressed.

The nurse leaves her only very rarely. Fearful of falling again, Ms H. avoids the stairs to the first floor, where the bedroom is located. Instead, she prefers to sleep in the living room on the couch. Unintentionally, Mrs H. accelerates, with their behaviour, the age-related muscle breakdown and the restriction of the range of motion further reduces their overall functional level. Under the mobility restriction also suffers the diet. Since the nearest supermarket is about 800 meters away, shopping can only rarely be done. A neighbour would be willing to go shopping for Mrs H., but she is uncomfortable asking for it. So she feeds mainly on soup soups because she is no longer hungry anyway because of the diminished movement. The restriction of movement increasingly neglects the once well-maintained rooms. When a distant niece comes to visit, she is appalled by the "dismantling" and neglected state of the house and urges Mrs H. to move to a nursing home.

**Features of the treatment and recovery of older people after fractures**

Old age is not a joy: this proverb humbles each of us with the thought that many problems inevitably accompany old age. First of all, of course, we are talking about health problems, which over the years are mostly progressing. However, a responsible attitude to their well-being can significantly facilitate the life of an elderly person. So, one of the most common reasons for seeking emergency medical care in people over 60 is a fracture. What is the reason for brittle bones in a person in old age, and what are the consequences of injuries of this kind, discussed in this assignment?

**Why the risk of fractures increases in old age?**

A fall can be a dramatic event, especially for an older adult, that marks the beginning of a downward spiral that ends in endangering independent living. In a fall, however, not only can the bones break, but the self-confidence in one's own motor skills also diminishes. This leads to an avoidance behaviour with a progressive loss of other abilities. In order to be able to prevent this downward spiral effectively, the identification of endangered patients and goal-oriented prevention are crucial in order to contain existing risk factors.

As the body ages, metabolic processes slow down, as does the ability to regenerate - the natural restoration of damage. As a result, people of advanced age develop osteoporosis - a progressive decrease in bone density. Just as the logs from which the wooden house is built begin to dry out over time, and the entire structure settles under its own weight, retirees have a decrease in growth, stoop, pathological curvature of the spine and so-called hypo traumatic fractures that occur with minor injuries or sudden movements. Another risk factor for fractures in older people is weakness and dizziness, which may be the result of concomitant chronic diseases (for example, heart and vascular diseases). As a result, it is easy to lose balance and fall on a slippery road or get hurt when doing everyday household chores such as cleaning or hygiene.

**The consequences of fractures for the elderly**

It would seem that fractures do not carry any danger. But nurses have long learned how to heal bones, and painkillers relieve the patient's suffering at all stages of recovery. However, in old age, the disease proceeds differently, and even a "harmless" injury can lead to death. One of the reasons is that the bones of people in old age grow together much more slowly than in youth. It is due to a decrease in metabolism and blood supply to skeletal tissue.

The second problem is related to the immobilization (temporary immobilization) of the damaged part of the body. It often mandatory bed rest (with a fracture of the femoral neck or vertebrae). The lack of movement weakens the body and negatively affects the emotional state of an older adult: many patients bedridden become indifferent to their health, complain of helplessness and do not believe in the possibility of recovery (Buerhaus, Skinner, Auerbach & Staiger,2017). Another danger is associated with thromboembolism; it is a decrease in the patient's mobility contributes to the formation of blood clots in the vessels of the lower extremities. That subsequently threatens to block the pulmonary artery - a deadly condition. According to statistics, one in four people who break a hip neck dies from the consequences of a fracture within six months. 90% of femoral neck fractures occur after 65 years (Bergen, 2016).

**How is the treatment of fractures of different localisation in elderly people?**

For an older person to have broken bones, they often have to resort to surgical intervention. We are talking about osteosynthesis, in which the fragments are connected by a metal plate, and in some cases, on joint replacement, in which the bone joint is entirely replaced by the implant. The problem with this approach is that not all people of age are able to undergo surgery safely, so the question of its advisability is decided on an individual basis. But it is not enough to return the skeleton to its "initial state" - it is essential that the patient begins to move in the same volume. After fractures, patients noticeably weaken, lose muscle mass and, much more dangerous, motivation for an active life. So, many older people who have broken the neck of the femur quickly learn to use a wheelchair and are sceptical of rehabilitation courses aimed at restoring the ability to walk independently. Therefore, it is essential, even at the stage of treatment planning, to think about selecting qualified rehabilitation specialists who will help "bring to mind" the work of a traumatologist and surgeon.

**Radial Fractures in the Distal Section**

 The most common type of fracture of the upper limb is usually observed when falling on an arm extended posture. In uncomplicated cases, the split treated by applying a plaster cast (or polymer bandage). If there is a displacement of bone fragments or if the doctor suspects that the process of their fusion will be complicated, the patient has spokes. The treatment process takes approximately six weeks, after which the patient needs rehabilitation - exercises aimed at restoring the muscle strength of the damaged arm.

**Fracture of the surgical neck**

 A relatively common type of injury that occurs in adults is when they fell from a height with a sharp jerk. In mild cases, the fractures without displacement, the treatment target in fixing the hand with a special bandage. If the bone fragments are separated, they are combined under local anaesthesia or a procedure for skeletal traction. In severe cases, the patient undergoes surgery with the application of plates. However, it may be contraindicated for debilitated patients. The period of immobilization is an average of 6 weeks; in the future, the patient needs rehabilitation aimed at restoring the functions of the damaged limb.

**Supracondylar and condyle fractures**

These fractures are diagnosed with injuries of the elbow, usually with falls on the arm. Treatment consists in the application of gypsum and a bandage holding the arm; in severe cases, the patient may require skeletal traction of the arm or surgery. Plaster must be worn for about six weeks. Rehabilitation as with other types of arm fractures.

**Hip fractures**

The thigh neck is the thinnest place in the bone that is poorly supplied with blood, so fractures in this area heal together for a very long time. As a rule, in older people, they occur when falling from their height. Such fractures require surgical treatment - osteosynthesis with a pin, knitting needle, plate, etc. or replacement of the femoral head or the entire joint. Postoperative hospitalization takes several days, while the rehabilitation period requires many months of hard physical therapy, physiotherapy and other activities aimed at restoring the mobility of a weak limb.

**Fracture trochanteric fractures**

Trochanteric fractures are common in the elderly due to osteoporosis. The femur grows together extremely slowly; therefore, if possible, patients undergo surgery aimed at combining fragments or replacing the hip joint. Recovery after a fracture and surgery takes six months or more. Patients need help with everyday activities, hygiene, cooking, and so on. Often it is necessary to adapt to the patient's home in a particular way, considering his weakness and inactivity.

**Fractures of the tibial condyles**

A fracture occurs during knee injuries, for example, when falling on bent legs. Such a fracture may be accompanied by bleeding in the cavity of the knee joint. Depending on the severity of the bone damage, the patient is given gypsum, knitting needles (Ilizarov apparatus), or surgery is performed with the installation of screws or plates. Full recovery of the limb after a fracture takes about six months. Throughout this period, the patient should undergo rehabilitation measures - physiotherapy, massage, etc.

**Ankle fractures**

They are diagnosed due to tucking of the legs or falling of an older person on a tucked leg. For older people with ankle fractures, a plaster cast is applied with a particular metal “stirrup” at the bottom, which makes it possible to lean on a sore leg without using a crutch. Fracture healing in uncomplicated cases takes about two months. Rehabilitation is aimed at restoring healthy gait and preventing lameness. It is necessary to lead a mobile lifestyle, engage in physical education; regular yoga classes are useful. Another essential prevention factor is proper nutrition, which includes the recommended dose of vitamin D (10 mcg per day), calcium (at least 700 mg) and refusal to drink alcohol. The first is found in sea fish, and especially its liver, in dairy products, butter, oatmeal and potatoes, while the second is abundant in cottage cheese, cheese, yoghurt, all kinds of cabbage, spinach, nuts, tofu. Do not neglect the intake of vitamin and mineral complexes to strengthen bones and immunity. Besides, it is useful for people of age to breathe fresh air daily and to walk more, increasing muscle mass. And the interest in life and attention from relatives will help them get away from depressive thoughts associated with ageing and avoid many health problems. At any age, bone fractures require not only proper and timely treatment but also a rehabilitation period. It is especially crucial for the elderly, who are much more difficult to recover than the young. At the end of the rehabilitation measures, standardized preventive measures for repeated fractures will require.

**The well-being of cares and the work community needs to be improved**

According to the doctoral study, elder abuse was more common in workplaces with a weak atmosphere. In their replies, nurses reported cases where workplace controversies seen as part of the mistreatment of the elderly. According to Miller (2018), the stress of nurses does not explain the more severe cases, but the mental and social abuse. The nurse may scream or punch something, or she may not be able to behave correctly. One way to improve well-being at work could be to increase work guidance. According to his experience, it is little uses in elderly services compared to, for example, psychiatry. (Miller, 2018).

**Intervention**

If relevant risk factors have been identified, these should be targeted. The exhaustion of resources, e.g., social support, information to the patient on local offerings for age-appropriate training programs, fall prevention strategies and increased sensitivity to home-made fall-triggers, as well as the targeted improvement of motor skills, are the basis for avoiding future falls.

The installation of hand grips, as well as the removal of tripping hazards in the home environment and optimization of the lighting, can reduce the risk of falling, especially in persons at risk of falling (Mostaghel, 2016). Also useful is the change of footwear to sturdy shoes with non-slip sole. In the case of falls accompanying cardiovascular diseases, such as tachyarrhythmias, a hypersensitive carotid sinus or a vasovagal syndrome, then the patient should be referred to a cardiologist or clinic for further diagnosis and therapy. The implantation of a pacemaker can help prevent future falls when indicated. Whether the assessment of visual impairment by an evaluation and a single intervention brings a reduction of the risk of falling, is still controversial.

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