THE INCLUSION CRITERIA FOR ANABOLIC TREATMENT OF OSTEOPOROSIS OF THE ELDERLY WITH FRAGILITY HIP FRACTURE

Bernarda Hostnik, MA.
Student of Social Gerontology, doctoral study, Alma Mater Europaea – ECM, Slovenia
bernarda.hostnik@serafin.si

Abstract

The increasing number of elderly people with osteoporotic hip fractures calls for the introduction of a new model of ortho-geriatric treatment in Slovenia, named "Celje model" of treatment of elderly people with osteoporotic hip fractures. Via a screening method, we can include the group of elderly people who meet the criteria for the anabolic medicamentous treatment of osteoporosis. The advantage of the anabolic medicamentous treatment of osteoporosis is lowering the number of fractures and recreating mineral bone density. Regrowth of bone density positively affects social rehabilitation of elderly people. The sustaining of a hip fracture brings change into the lives of the elderly. Out of fear of new injuries and pain, they withdraw from the society. The fear discourages them from physical activity; they lose self-confidence, withdraw, reduce social contact and slide into social marginalization.

Key words: elderly, osteoporosis, fall, hip fracture, treatment, social rehabilitation, Celje model

* * *

1 Introduction

In Europe, fractures caused by osteoporosis happen every 30 seconds. The desire to regain the quality of life of the time before the fracture is striking. This is why the interest in the new "Fast track" geriatric traumatology approach, the aim of which is to shorten the surgical treatment process of elderly with hip fractures, has been increasing. The current way of treatment, which is based on the traditional division of trauma surgery, where the anaesthesia specialist and the internist consultatively cooperate in preparing elderly patients for surgery, does not meet the criteria for fast and integral treatment of elderly with hip fractures anymore. A multidisciplinary approach of treatment and rehabilitation of elderly with hip fractures increases the optimization of the quality of life.

A model of multidisciplinary approach to the treatment of elderly with hip fractures consists of concepts which include early comprehensive evaluation of an elderly patient, team approach, faster treatment, early mobilization and coordination of dismissal to a solid social environment. It is reasonable to include social gerontologists in the process of team treatment, as they fill the gap between the primary and the secondary level of medical treatment, connect and coordinate the work within medicine and healthcare and consider neglected concepts of social rehabilitation.

Due to an increasing number of hip fractures among the elderly, there is a need for a screening method which enables the identification of possibilities for inclusion of the elderly who meet the criteria for the anabolic medicamentous treatment. The criteria of inclusion in the anabolic medicamentous treatment require mental health and agreement to intravenous drug application, willingness to receive osteoporosis treatment for at least a year, a prior hip fracture injury and the ability to endure the treatment.

2 Methodology

Within the pilot research, we carried out qualitative as well as quantitative studies, collected data, analyzed and interpreted it. In the framework of qualitative research, we conducted a case study in the form of an interview, the content of which we used to explain how the field of the treatment is unaccounted for even on a primary level. Biological information in terms of cognitive abilities, motivation, perception ability, social inclusion and the strength of social network is meaningful data and is presented in the analysis. We included in the quantitative pilot study elderly people with hip fractures, aged 65 and over, that have been hospitalized at the Traumatology Department of the Celje General Hospital. The study includes 24 elderly people. We conducted a survey of 5 questions regarding the appropriateness of the anabolic medicamentous treatment of elderly. We formulated two hypotheses and a research question:

H1: The elderly are well informed about osteoporosis.

H2: The elderly possess relevant information about risk factors for osteoporosis already on the primary level.

Research question: How many elderly people meet the criteria for inclusion in further osteoporosis treatment?

3 Results

Upon analyzing the data, we divided the interview into individual units, representing life, activities, social inclusion and social networks before as well as after the injury,, care for independence, fear of new injuries, self-pity, escape to isolation and changes in the way of living.

Were you social and enjoyed being around others prior to the injury?

"I was an active member of a theater group, I adored culture."

"I had been part of a religious group, where I participated actively, we were talking and thinking. I followed in the footsteps of my late wife."

The explanation of the theory of activity is reasonable. Independent activity as well as participation in social activities is implied.

We recognize the theory of activity, despite it being indicated very subtly. Due to the loss of a loved one, the respondent primarily takes up the habits and interests of the deceased, but when that does not bring consolation or comfort, he slowly starts to abandon social contact. The abandonment of social contact, typical for the mature stages of life, brings about the dissolution of social integrity and low self-esteem.

What was your health like prior to your hip injury?

"I wear glasses, I have the Restless Leg Syndrome, and I have been an insomniac since childhood."

The theory of life cycles, which changes throughout different stages of life, is recognized. Among other changes, it causes changes in health as well. Moreover, some changes on an emotional level are identified – in this particular case study, it is the death of a family member.

He wears glasses, has the Restless Leg Syndrome, has been an insomniac since childhood and has problems with his prostate. He goes to check-ups regularly, he urinates often, especially at night, and has high blood pressure, which he is being treated for.

The factors affecting the possibility of injury are complex and are a combination of biological and behavioral factors and the factors of the physical and socio-economic environment. Twelve of the biggest retrospective studies of injury among the elderly all mention environment-conditioned injuries the most. Herein are included places where one easily trips, like doorsteps, stairs, wet floor, worn down equipment and damaged flooring. Furthermore, even the simplest things can contribute to tripping and falling, like slippery footwear or overly long trouser legs.

Glasses are very important, too, especially good visibility and the appropriate diopter. In the case of the elderly, taking more drugs at the same time is a typical characteristic as well and can lead side effects that increase the possibility of injuries. The respondent's house is multi-storied and has lots of stairs, rooms are small, as are the bathtub in the bathroom and the toilet. He has a lot of carpets that have been in his house since before his wife passed away and which he refuses to remove because they remind him of her. The furniture is old and is not adjusted, the bedroom is on the upper floor and the bed is old and high. The bathroom is on the ground floor. He does not use bedpans.

What were the relationships with your family and relatives like before the injury?

"My family started to get on my nerves more and more; it was hard for me to listen to their long talks, I was always in a hurry to leave. Though, at home, I was lonely."

There is a visible abandonment of social contact and a voluntary and gradual descent into social exclusion. There is a tear in social networks. The theory of withdrawal is indicated.

How did it make you feel when you withdrew from other people and activities?

"I became clumsy and slow."

Social activities, e.g. taking care of oneself, socializing with others, and other social and household activities, positively affect elderly people. In this case, a decline of the aforementioned is noticeable. Social networks decrease with age, especially after the loss of a loved one, and are hard to restore. The social self is disintegrated; self-esteem and the will to go on are demolished.

He became more and more clumsy and slow. In April, when taking a short morning walk around the house, he tripped over a rug and fell. He was driven to a hospital by an ambulance, where they determined he had

fractured a hip. He had surgery the following day. He has a strong ability of comprehension, learning, though he does not have as much will.

Did you see your personal physician regularly, and did you ever talk about osteoporosis?

"Of course I see her! But I'm not happy with her, I have to tell her about everything myself. Oh well, we never talked about osteoporosis, but I've read a lot about it."

What can you tell me about osteoporosis?

"That I have to eat lots of dairy products and exercise, which I do and it's enough. Is it? Is it not?

How do you picture life after the hip fracture?

"I'm worried. I don't know how I will manage at home."

He is worried about how he can manage at home; children come to visit, but they do not talk about staying at home. He already filled out an application for dormitory accommodation some time ago, but withdrew it later because he could not bear the thought of leaving his own home and his memories. When talking about moving to a home, he answers abruptly, seemingly in a bad mood, and stops the conversation, saying he will manage somehow and that he hopes he will join his wife soon.

Are you afraid of recurrent falls?

"Yes, I'm afraid, I'll buy new slippers, ones that won't be slippery."

He is afraid of recurrent falls. First, he plans to buy new, non-slippery slippers. He does not intend to make any other changes; the carpets are still the ones his wife bought and so he does not want to change them.

The results of this case study present interesting facts. The social inclusion of elderly people helps them to be more active, find meaning in life, be more understanding and maintain relationships. Older people have a hard time getting over the death of their spouses and partners,

which leads them to withdraw eventually to social isolation. They show a distinct attachment to their homes, which is why it is not easy for them to think about moving to a retirement home.

Elderly people who suffered a fall and fractured their hips fear recurrent falls and are, consequently, less physically active. Often, the consequences of falls present a fear for one's own future (Bilban, 2004, p. 308). Family members oppose their father coming back home because he is not independent and they do not wish to take care of him at all times.

In this particular case, an important risk factor for falls is the factor of age, health (glasses, vision correction, dirty lenses, high blood pressure, insomnia), environment (carpets, stairs), and insufficient physical activity.

Despite the expectation that elderly people know a lot about osteoporosis and the risk factors for falls and hip fractures, units of the interview demonstrate the exact opposite, namely that elderly people have heard about osteoporosis but do not know much about the disease. Accordingly, we must disprove our hypothesis H1 that the elderly are well informed about the osteoporosis disease. Furthermore, we must also disprove the second hypothesis, which states that an elderly person gets information about the risk factors for osteoporosis and hip fractures on a primary level of healthcare services. However, we can confirm the third hypothesis, which states that elderly people with osteoporotic hip fractures fear recurrent falls and socially isolate themselves due to such fear In the research question, we wondered about how many elderly people with osteoporotic hip fractures are capable of continuing the anabolic medicamentous treatment. The research shows the number of such people to be quite low. Based on our research, there are four elderly people out of the 24 included who meet the inclusion criteria for continuing treatment.

We conducted this study about elderly people with osteoporotic hip fractures that meet the criteria for treatment with anabolic medication between the 1st of January, 2013, and the 1st of April, 2013. The research sample contains 24 elderly people. Results were obtained with research questionnaires, consisting of five questions, all of which had to be an-

swered with YES in order for an elderly person to be included in the process of anabolic treatment of osteoporosis.

The questionnaires contain questions that relate to the following: taking medication for osteoporosis for at least a year, which was inefficient, given that an osteoporotic fracture occurred during treatment; the cause of the fracture is a fall from a standing position; the elderly person with hip fracture is mentally capable and willing to continue treatment and has already had his bone density measured in the past.

On the whole, four of the elderly people are suitable for the continuance of treatment, since they answered affirmatively to all the questions, while the others did not meet the criteria. The highest deviation occurred in regard to the question about the treatment of osteoporosis, since 20 elderly people had never had any osteoporosis treatment. Another major factor for not meeting the criteria is mental capability; out of 24 respondents, only 19 met this criterion. The others had been diagnosed with dementia.

4 Discussion

The issue of the ageing population and consequently, the increase in the number of patients who fracture their hips in the third stage of life is global (Komadina, 2011).

The results of our study show an uncovered field of informing, teaching and treating osteoporosis, already on a primary level. Most of the elderly people have heard about the osteoporosis disease and think in order to prevent it is enough to eat dairy products, but otherwise they have no other information or knowledge about the risk factors. Because they mainly experience no pain prior to the fracture, they do not pay much attention to the disease.

The problem is not only in the fracture and surgery, which presents a big risk, but also in the fact that the disease has social implications.

Not only is the whole way of living of the elderly person changed, there is also constant fear of recurrent falls fractures, which — as we were able to conclude based on the conversation — leads to social isolation. The elderly people state that they will stay at home, in a familiar place, and give up physical and social activity, since any of it can lead to another injury, which in turn would further contribute to their isolation, the presence of fear, inactivity and the risk of another fall. The determinant, related both to social environment and elderly people's inclusion in it, is important for health in old age. Isolation, loneliness and the consequences of minimal social activity increase the risk of falls (Hvalič Touzery, 2010). The recognition of injury risk factors is important for the quality of life in old age. Therefore, education is an important part of social inclusion and plays a significant role in maintaining good health (Kump & Krašovec Jelen, 2009).

Via the qualitative study and the interviews, we cover the entire depth of the issue as shown at the very beginning by obtaining demographic data as well as social information for a faster execution of hospital dismissal planning. Social information contains data about marital status and the formation of social networks that offer support to elderly people. The focus is also on assessing the appropriateness of the residence of the elderly with a hip fracture. In the assessment of social data, we include Berthel's Index for the assessment of regular daily activities before the fall, at admission to the hospital. The functional status is assessed by the doctor and is logically related to assessment of the state of the elderly person. Falls are dealt with according to the causes, the number of falls in the last year, the presence of fear of recurrent falls and the clinical assessment of vision. With a Morse ranking of risk for falls, we include all the elderly people with hip fractures who were admitted to the department and based on that we execute the planning of healthcare. The overview of Masud's model of risk factors, where over 4000 reasons for falls are stated, gives important insight on the multifactor interdisciplinary preventive program (Masud & Morris, 2004).

Activities of different associations for osteoporosis, pensioners' associations, volunteering activities of healthcare professionals in retirement, the promotion and execution of lectures with examples of good practice, better coverage of the primary level and the implementation of a reference clinic for osteoporosis are all very positive developments.

It is reasonable to reinforce the secondary level with the help of social gerontologists who will spend sufficient time with elderly people suffering from hip fractures in hospitals to establish social connections with family members, the chosen personal physician and the regular doctor, for whom he provides information about the possibilities of continuing an elderly person's treatment with anabolic medication.

5 Conclusion

Due to falls and hip fractures, life changes for many elderly people. It is often noted that out of fear of recurrent falls and pain the elderly are afraid to be physically active, are not self-confident, withdraw and slowly descent into social isolation.

The World Health Organization adjusted to the crisis of the increasingly ageing population as well by establishing a professional association for a rapid treatment of the elderly with osteoporotic fractures. A new organization of the ortho-geriatric department has already been introduced abroad.

The advantages of the ortho-geriatric department are in the inclusion of elderly people with hip fractures, the integral approach to treatment and healing and the implementation of social rehabilitation, which is devoted to helping patients regain the quality of life they had before the injury. The planning of the dismissal starts immediately upon the admission of an elderly person to the department and is based on the assessment of mobility and capability for activity, taking into account a possibly deteriorated social network. The advantage of including a social

gerontologist in the process is better coordination between medicine, healthcare and rehabilitation. The main preoccupation of social gerontologists is working on the criteria of inclusion of elderly people with hip fractures in continuous treatment with anabolic medication.

In Slovenia, the Ministry of Health, too, has shown an interest in the organization of the ortho-geriatric department, mainly because of an accelerated process treatment of elderly people with hip fractures and high cost effectiveness. With this study, we identified a gap between the primary and the secondary treatment of older people. The criteria of inclusion in a treatment with anabolic medication could become a written rule and would help with further work.

Hip fractures, as well as some other difficult life situations, cause a decrease in social networks, especially in old age. A decrease of social networks leads to social isolation and exclusion.

Stressing the importance of social rehabilitation would mean a step forward in social gerontology, as we would start integral treatment of elderly people. The focus would be on the quality of life, the identification and expansion of social networks and the prevention of social exclusion of the elderly.

References

Bilban, M. (2004). Telesna aktivnost za ohranjanje zdravja in preprečevanja poškodb. In V. Smrkolj & R. Komadina (Eds.), *Gerontološka travmatologija* (pp. 295-316). Celje: Založba Grafika Gracer d. o. o.

Masud, T., & Morris, R. O. (2007). Epidemiology of falls. *Age ageing*, 30(4), 2-7.

Regula, H., & Robnett, W. (2010). *Gerontology for the health care professional*. London: Jones and Bartlett Publishers.

Hooyman, H., & Asuman, K. (2008). *Social gerontology: a multidisciplinary perspective*. Boston: Pearson/Allyn & Bacon.

Compston, J. (2005). *Kako razumeti osteoporozo.* Ljubljana: Pisanica.

Komadina, R. (2011). *Zlom kolka v Sloveniji 2000-2010*. Celjski dnevi. Služba za raziskovalno delo in izobraževanje SB Celje, učna bolnišnica MF v Ljubljani.
Kump, S., & Krašovec Jelen, S. (2009). *Vseživljenjsko učenje-izobraževanje starejših odraslih*. Ljubljana: Znanstveno poročilo pedagoškega inštituta.
Hvalič Touzery, S. (2010). Poročilo o preprečevanju padcev med starimi ljudmi. *Kakovostna starost, 13*(3), 51-53.