

The socio-economic cost of osteoporosis

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SUMMARY. In Romania about 1,3 milion women, one third of women aged over 50 years, experience problems related to osteoporosis; the World Health Organization considers osteoporosis to be a major disease of the modern era. Osteoporosis, best defined as "little bone" reach clinical attention when it is severe enough to cause microfractures and the collapsing of the vertebral bodies leading to backache or predisposition to fractures of other bone. From financial point of view, complications of osteoporosis significantly impacting both pacients and health services as well. Disability due to this major disease is comparable to that caused by myocardial infarction, it is estimated that in the near future 50% of patients with hip fracture can not walk unaided. The consequences of osteoporosis include both direct human aspects: deteriorating the quality of life, increasing the number of fragility fractures, and indirect aspects: increased financial costs to prevent, detect, diagnose and treat the disease. All these aspects make osteoporosis a major public health with a growing scale at present due to aging.

KEY WORDS: osteoporosis, fractures, increased costs, major disease.

Osteoporosis, the most frequent metabolic disease of the bone, represents an important cause of morbidity in the elderly. The importance given to this problem has increased significantly lately due to the mutations it produced in the structure of the population that result in increasing people's life period. Therefore, the data given by The WHO – World Health Organization state that, if in 1960 the number of people over 60 was almost 250 million, in 2020 it will reach approximately 1 billion. The general aging tendency of the population occurred due to increased life expectancy, especially in developed countries; for women living in developed countries being close to 80 years (Hingorjo M.R., Sadiqa S., Masood A.Q., 2008).

At the same time, osteoporosis representing the most disabling disorder in menopausal women, occupies a central place in treating and recovering of a large contingent of ill women in the medical activity from the ambulatory (Mosley J.R. 2000). Women over 45 spend more time in hospital for treating diseases caused by osteoporosis than for any other diseases such as diabetes, breast cancer or myocardial infarction.

The major clinical manifestations of osteoporosis, diffuse disease of the skeleton, consists in fractures of the vertebral, of the limbs and of the femoral

neck (Compston J. 2002). It is known that fragility fractures represent a significant burden for society both from a medical and economical point of view. In Europe, the total cost of care –in the first year- after a hip fracture are estimated at 14,7 billion euro per year, and the estimated costs for treating all fractures on osteoporotic bone will reach 31,8 billion euro/year by 2025 due to the aging population. The clinical consequences of vertebral fractures are: height reduction, progressive enhancement of thoracic kyphosis, appearance of chronic pain and the onset of depression (Gass M., Dawson-Hughes B. 2006). Therefore it has been found that the presence of a bone fracture increases by 2,5x\ the risk of other bone fractures in the next year. Mortality after hip fracture in the first year is 12-24 percent in women and 30% in men; plus, 50% of the patients remain with a high degree of permanent disability and require 24 hours /7 days assistance (Lee K.C., Lanyon L.E. 2004). Beside human costs, the socio-economic burden of the disease is huge, the increase of direct health care costs and hospitalization is equal with the increase of indirect costs that derive from the loss of independence for patients, whom require assisted care. Hospitalization costs, for the hip fragility fracture, are superior to those for myocardial infarction

or diabetes due to the long recovery period which is over 1 year.

In Europe and in the United States of America, occur each year approximately 2,3 million fragility fractures, circa at every 30 seconds a person suffers an osteoporotic fracture. Given the raise of expenses for the treatment of osteoporosis, it is very important that in the future the medical care system of patients with osteoporosis to be as structured as possible (Catto M. 1977). And so, for the osteoporosis patients, to be able to ensure the treatment of as many ill as possible, the effectiveness of the treatment must be correlated with a very reduced financial cost.

Presently, according to World Health Organization statistics, over 200 million people from all over the world are affected by osteoporosis, which leads

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to bone fragility, with a high risk of fracture, even in the case of some mild accidents such as a slip in the house or on ice. The socio-economic impact of osteoporosis therefore imposes an early discovery of patients with a high risk of illness, to prevent the onset of the disease and reduce the expenses necessary for the treatment.

Unfortunately, in Romania osteoporosis is still underdiagnosed and recognized late, prophylaxis is usually missing and the treatment is sometimes made randomly.

All the data and facts mentioned represent solid arguments for the ongoing of a national screening program, prophylaxis and osteoporosis treatment. It is clear that currently osteoporosis represents a medical problem with a big social impact meaning a medico-social problem.