



4. EPIDEMIOLOGY AND CLINIC-PARACLINIC FEATURES OF OSTEOPOROSIS IN MEN

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Introduction. Osteoporosis is the disease of bone tissue and it is not limited to postmenopausal women. In recent decades, increasing attention has been paid to osteoporosis in older men. It has been established that men suffer from osteoporotic fractures about 10 years later than women, but life expectancy increases faster in men than in women. Although the prevalence of osteoporosis is greater in women, mortality after fracture is higher among men.

Aim of study. Osteoporosis, traditionally perceived as a predominantly female affliction, has long overshadowed its impact on the male population. While it is well-established that women are susceptible to bone fragility and fractures as they age, the prevalence and consequences of osteoporosis in men have been underappreciated and, consequently, understudied.

Methods and materials. A systematic review on the published literature was conducted which focused on osteoporosis in men. It is recommended to evaluate calcium, phosphorus, alkaline phosphatase, and serum protein levels, as well as liver, kidney, thyroid, adrenal, and pituitary function tests. As well as determining the level of total testosterone, estrone, estradiol and sex hormone-binding globulin, PTH, 25-hydroxyvitamin D and osteocalcin. It is an important calculation of the FRAX index. Performing DXA to determine the BMD and degree of osteoporosis. Bone biopsy to rule out occult forms of osteomalacia, acquired osteogenesis imperfecta, mastocytosis and malignancy.

Results. After 50-year-old, one in three osteoporotic fractures occurs in men, and the morbidity and mortality associated with fractures is even greater than in women. In 50% of men with osteoporosis, an underlying cause can be identified and it is in the secondary osteoporosis. In the absence of an identifiable etiology, male osteoporosis is referred to as "idiopathic osteoporosis" in men aged 30 to 70 years and "age-related osteoporosis" in older men. As in women, the presence of estrogen, not testosterone, is the most important sex steroid regulating male skeletal status. Diagnostic and treatment recommendations are still largely based on bone mineral density (BMD), with osteoporosis defined as a T-score of 2.5 standard deviations below the values for young people. To this day guidelines for the diagnostic evaluation of male osteoporosis are not as well validated as in postmenopausal osteoporosis.

Conclusion. Osteoporosis in men is an increasingly important health problem: after the age of 50, one in three osteoporotic fractures occurs in men, therefore the morbidity and mortality associated with fractures are higher than in women. Men have larger bones than women, which makes bone density appear higher on DXA, and the standard deviation of DXA is different from that of women. Age-related osteoporosis is due to decreased levels of sex steroids, changes in growth hormone-like growth factor axis 1. In men with low BMD, 50% have an underlying cause, most often glucocorticoid excess, hypogonadism, or alcohol abuse. But if DXA and FRAX are both used, a large proportion of older men will be candidates for osteoporosis treatment.