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Editorial

The Postmenopausal Osteoporosis and the Phytoestrogens

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The osteoporosis represents a major health problem, with multiple socio-economic implications. This condition occurs predominantly in the postmenopausal women and has a significant impact on their morbidity, mortality and quality of life.

For the menopausal women, the lifelong probability to make an osteoporotic fracture is of 40% or more in the developed countries, approaching the corresponding figures of the probability of cardiovascular disease and greatly exceeding breast cancer (12%).

Therefore, increasing prevalence of postmenopausal osteoporosis, which is currently anticipated by increased life expectancy of the population, represents a paramount consideration for the scientific medical world. So, the prevention of postmenopausal osteoporosis, by using some effective therapies with fewer side effects that involve reduced costs for the healthcare system would be particularly useful and important.

Depriving the body of ovarian hormones during menopause, represents a major risk factor for osteoporosis. Although numerous studies demonstrate the effectiveness of hormone replacement therapy, especially of estrogens, in reducing bone loss, mainly when is administered during the first 5 years after the installation of menopause; this therapy is recommended as first-line treatment only for women who have climacteric symptoms moderate and severe, due to the associated risks. Also, according to the latest studies, HRT is administered in the lowest doses necessary to control symptoms and for short periods of time.

Estrogens used in low doses have demonstrated effects in reducing bone remodeling and preserving bone mass, but to prevent osteoporosis they should be administered over long periods of time.

Considering that menopause is a physiological stage in any woman's life, and taking into account the effects on the health status, among which osteoporosis occupies an important place, we believe that any alternative to HRT should be studied and evaluated.

Plant substances or their metabolites, which induce biological responses in vertebrates and can mimic or modulate the action of endogenous estrogen, usually by binding to estrogen receptors are called phytoestrogens. The actions of estrogen is determined, most often of structural similiritate 17-beta-estradiol, the female sex hormone.

More phytochemicals interact with the estrogen receptors of these isoflavones, lignans coumestanii and their effects have been studied for estrogenic or anti-estrogenic, antioxidant and anticarcinogenic.

The biological effects of phytoestrogens have been the subject of numerous researches, from their discovery as substances with estrogenic action. Many studies have shown the efficiency of this type of therapy in improving the symptomatology associated with menopause as well as their role in preserving the bone mass.

Comparing the effectiveness of HRT, administered in small doses, with that of phytoestrogens coming from soy, led to the conclusion that there are no significant differences between the two therapies regarding the effects on BMD, bone resorption and the specific

climacteric symptoms. Also the treatment with phytoestrogens, evaluated as an alternative to HRT, for the prevention of postmenopausal osteoporosis can be administered on a large scale to menopausal women with or without specific symptomatology. However, comprehensive studies conducted over a longer period would be of real utility as they would allow the determination of the long-term differences, regarding the effects on fracture risk, cardiovascular disease and breast cancers.

Searching for alternative drug solutions is inevitable, and science is one that should provide substances that can be used to treat the same symptoms but with fewer side effects.

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