Abstract

Osteoporosis is recognized worldwide as a major public health problem since many decades ago, mainly due to the cost of treatment for related fragility fractures. Fortunately, WHO has provided new strategies for identifying populations with a high ten-year fracture risk, which together with increasingly sensitive diagnostic methods make it feasible for decision makers in this field to design cost effective fracture prevention strategies. These strategies are aimed at preventing falls and improving bone strength and therefore diminishing the prevalence and incidence of new or recurrent osteoporosis related fractures. Herein we review the content of these new strategies, and the medical treatments available, as well as their efficacy in the Mexican context. Several countries are now reporting a decreasing incidence and prevalence of osteoporosis related fractures, after 30 years of clinical and population-based interventions. Mexico has several effective anti-fracture drug treatments available. Such drugs can be classified according to the mechanism that makes them effective as: 1) antidestuctive or anticatabolic, 2) bone forming or anabolic, and 3) those with both actions or mixed drugs. The authors argue that treatment strategies that use drugs to strengthen bone tissue must assure normal mineralization of the already formed, remnant bone tissue and/or the newly formed bone tissue in order to encourage biochemical outcomes like formation of mature hydroxyapatite crystals with complete biomechanical and biochemical properties and therefore long term benefits. The present review includes some perspectives that will surely enhance osteoporosis management in the near future and which will bring about a decrease in the impact of the problems in Mexico.

Keywords

Osteoporosis management, diagnosis, treatment, drugs, anabolic, catabolic, mineralization, cost effectiveness, benefit.