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Editorial
New Issues in the Management of Osteoporosis

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Osteoporosis results in significant morbidity and medical costs while effective treatment options are also evolving. Bisphosphonates are considered standard antiosteoporotic medication. Other antiresorptive treatment options of osteoporosis include selective oestrogen receptor modulators, hormone therapy, calcitonin, and denosumab. In addition, strontium ranelate of dual mechanism (anabolic and antiresorptive) is available for primary treatment of osteoporosis and anabolic drugs as parathyroid hormone for more severe bone fragility. The long-term bone protective, and possible adverse, effect of the osteoporosis medications needs exclusive research. As an example, it has been speculated that long-term use of BPs could result in pathologic fractures.

The focus of this special issue is on new issues in the management of osteoporosis.

The first paper of this special issue, "*Mikkeli Osteoporosis index identifies fracture risk factors and osteoporosis and intervention thresholds parallel with FRAX*" deals with identification of osteoporosis and fragility fractures in postmenopausal women based on individual risk factor profile. It introduces and validates the Mikkeli Osteoporosis Index (MOI) and compares its performance to WHO FRAX tool in separate Finnish cohorts of postmenopausal women. The performance of MOI was found to be comparable to that of World Health Organization (WHO) FRAX-tool in identification of intervention thresholds.

The second paper, "*The effects of parathyroid hormone applied at different regimes on the trochanteric region of the femur in ovariectomized rat model of osteoporosis*" addresses the effects of parathyroid hormone on trochanteric bone in rat model. The effects of PTH on biomechanical and histomorphometric parameters of the trochanteric region are compared between two application frequencies in ovariectomised rats. The increased bone formation rate was observed under PTH treatment mainly at the endosteal side.

The third paper of the special issue, "*The facial skeleton in patients with osteoporosis: a field for disease signs and treatment complications*" focuses on the changes of the facial skeleton in osteoporosis. The paper includes review of the effects of osteoporosis on inner ear and oral health as well as effects of osteoporosis treatment modalities on facial skeleton. Facial skeleton was concluded to experience several noteworthy changes due to osteoporosis and associated treatments.

The fourth paper of the special issue, "*Bisphosphonates and atypical fractures of femur*" deals with severe complication of bisphosphonate therapy. It includes review of the current knowledge on the effects of long-term bisphosphonate therapy on atypical fractures of the femur. The paper includes description of the atypical fractures from the view of pathophysiology, epidemiology, and case report series.

The last paper, "*Similarities in acquired factors related to postmenopausal osteoporosis and sarcopenia*" reviews the current knowledge of the interaction between sarcopenia and osteoporosis in postmenopausal women. The paper describes the up-to-date diagnostic criteria for the two syndromes and includes detailed review of the common risk and preventive factors. The paper proposes a close harmony between decline in bone and muscle health among the elderly.

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