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Short Communication

Typical Osteoporotic Medications affecting Fracture Risk and Bone Mineral Density

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DESCRIPTION

Osteoporosis is a chronic bone disease, particularly in the older, and is distinguished by low bone Mineral Density (BMD), impaired bone quality, and loss of structural and biomechanical properties, bringing about decreased bone strength. Osteoporosis is the most widely recognized bone condition worldwide, and in 2010, it impacted more than 37.3 million people in the European Union (EU) and the United States of America (USA). The significant result of this predominant bone disease is the occurrence of osteoporotic fracture, which can impact people's lives as they are related to significant morbidity and mortality. Likewise, there is a high economic burden of osteoporotic fractures, approximated at 35 billion euros in 2010, and this is probably going to increase further with the aging of the population [1]. Consequently, osteoporosis can affect an individual's health status and can lead to major healthcare costs.

Presently, bisphosphonates are the standard treatment for osteoporosis and different diseases connected with bone loss due to their constructive effects on bone combined with long treatment experience and low expenses. Although, bisphosphonates are not the only medications that are available for the treatment of osteoporosis. Current treatment choices can be separated into two groups, as osteoporosis is explained by an imbalance in bone resorption by osteoclasts and bone arrangement by osteoblasts [2,3]. The primary treatment comprises drugs that can prevent bone resorption by inhibiting osteoclasts. These anti-resorptive medications are most significant in the treatment of osteoporosis and incorporate bisphosphonates, denosumab, estrogens, and raloxifene. The subsequent treatment group comprises osteoanabolic medications, which increase bone development by expanding the movement of osteoblasts. Teriparatide and romosozumab are at present the only osteoanabolic prescriptions that are approved by the US Food and Drug Administration (FDA) and by the European Medicines Agency (EMA) for the treatment of osteoporosis.

Osteoporosis is distinguished by a decreased BMD, which is a significant determinant of bone fracture risk and measuring BMD is a vital part of the diagnosis of osteoporosis. In theory, every medication influencing BMD might impact osteoporosis and fracture risk. Information about the positive and negative relationships of various medications with fracture risk and BMD is significant in the decision-making process about which drugs can and which should preferably not be used in patients with osteoporosis [4]. Osteoporosis is a highly prevalent bone disease influencing more than 37.5 million people in the European Union (EU) and the United States of America (USA). It is described by low Bone Mineral Density (BMD), impeded bone quality, and loss of structure and biomechanical properties, bringing about reduced bone strength. An increase in morbidity and mortality is found in patients with osteoporosis, brought about by around 3.5 million new osteoporotic fractures. Presently, various drugs are available for the treatment of osteoporosis, including anti-resorptive and osteoanabolic medications. Bisphosphonates, which belong to the anti-resorptive medications, are the standard treatment for osteoporosis formed to their positive effects on bone, long-term experience, and low expenses. But, not just prescriptions utilized for the treatment of osteoporosis can influence bone: A few different medications are recommended to have an effect on bone too, particularly on fracture risk and BMD [5]. Information about the positive and negative consequences of various medications on both fracture risk and BMD is significant, as it can add to an improvement in osteoporosis prevention and treatment.

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