

Vital Role of Risedronate: Slow Down Bone Loss and Reduce the Risk of Bone Fractures

Lukas Fischer*

Department of Biological Chemistry, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA

DESCRIPTION

Osteoporosis is a chronic condition that weakens bones, making them fragile and more likely to break. It affects millions of people worldwide, especially postmenopausal women [14]. Although there are several medications available to treat osteoporosis, risedronate has emerged as one of the most effective and widely used options. Risedronate is a bisphosphonate medication that works by inhibiting bone resorption. It binds to the bone mineral and prevents the breakdown of bone tissue, thereby reducing the risk of fractures. The drug is available in both daily and weekly formulations and has been shown to significantly increase bone density and reduce the risk of vertebral, hip, and other types of fractures. One of the main advantages of risedronate is its ease of use. The weekly formulation is especially convenient for individual who may have difficulty remembering to take medication every day. It is also well-tolerated, with few side effects reported. However, like all medications, risedronate is not without risks, and individual should be aware of the potential side effects before starting treatment [5-8]. The most common side effects of risedronate include nausea, abdominal pain, and diarrhea. These side effects are usually mild and resolve on their own. However, in rare cases, more serious side effects can occur, such as Osteonecrosis of the Jaw (ONJ) and Atypical Femoral Fractures (AFF). ONJ is a rare but serious condition that can occur when the jawbone is exposed and does not heal properly. AFF is a type of fracture that occurs in the thigh bone and is often associated with long-term bisphosphonate use. Despite these risks, the benefits of risedronate in preventing fractures far outweigh the potential harms. The drug has been shown to reduce the risk of vertebral fractures by up to 70% and hip fractures by up to 41%. These results are especially significant considering the high mortality and morbidity associated with hip fractures, which can lead to loss of independence, reduced quality of life, and increased healthcare costs. In addition to its effectiveness in preventing fractures, risedronate has also been shown to improve quality of life in patients with osteoporosis. Studies have found that treatment with bisphosphonates can reduce pain and improve mobility, which can have a significant impact on a patient's

overall well-being. However, it is important to note that risedronate is not a cure for osteoporosis [9-11]. It can slow down bone loss and reduce the risk of fractures, but it cannot completely reverse the damage that has already occurred. Therefore, it is important for patients to continue taking the medication as prescribed and to make lifestyle changes, such as increasing physical activity and ensuring adequate calcium and vitamin D intake. Another important consideration for patients taking risedronate is the timing of the medication. The drug should be taken on an empty stomach, with a full glass of water, at least 30 minutes before the first food, drink, or medication of the day [12]. This is because food, especially calcium-rich foods, can interfere with the absorption of the medication.

CONCLUSION

Risedronate is an effective and well-tolerated medication for the prevention and treatment of osteoporosis. While there are potential risks associated with its use, the benefits of reducing the risk of fractures and improving quality of life far outweigh the potential harms. Patients should be aware of the potential side effects and take the medication as prescribed, while also making lifestyle changes to support bone health. Overall, risedronate is an important tool in the fight against osteoporosis and should be considered as a treatment option for patients at risk of fractures.

REFERENCES

1. Kindzelski BA, Ghobrial J, Schlenk R, Pettersson GB, Raymond DP. multidisciplinary approach to isolated pulmonary vein compression by an enlarging vertebral osteophyte. Case Rep. 2022;4(3):145-149.
2. Kim BS, Han MS, Lee TK, Kim JY, Lee JK, Moon BJ. What clinicians should consider when performing oblique lumbar interbody fusion in a patient with long vertebral body osteophytes. World Neurosurg. 2022;163:e450-e470.
3. Morton AM, Peipert LJ, Moore DC, Ladd AL, Weiss AP, Molino J, et al. Bone morphological changes of the trapezium and first metacarpal with early thumb osteoarthritis progression. Clin Biomech. 2022;100:105791.

Correspondence to: Lukas Fischer, Department of Biological Chemistry, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA, E-mail: Lukas.fischer@arcor.de

Received: 01-Nov-2023, Manuscript No. JOPA-23-22586; **Editor assigned:** 03-Nov-2023, PreQC No. JOPA-23-22586 (PQ); **Reviewed:** 17-Nov-2023, QC No. JOPA-23-22586; **Revised:** 24-Nov-2023, Manuscript No. JOPA-23-22586 (R); **Published:** 01-Dec-2023, DOI: 10.35248/2329-9509.23.11.373.

Citation: Fischer L (2023) Vital Role of Risedronate: Slow Down Bone Loss and Reduce the Risk of Bone Fractures. J Osteopor Phys Act. 11:373.

Copyright: © 2023 Fischer L. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

4. Kumaresan S, Yoganandan N, Pintar FA, Maiman DJ, Goel VK. Contribution of disc degeneration to osteophyte formation in the cervical spine: A biomechanical investigation. *J Orthop Res.* 2001;19(5):977-984.
5. Friedlander AH, Monson ML, Esguerra AC. Osteophyte (bone spur) formation of the cervical spine. *Oral Surg Oral Med Oral Pathol.* 1993;76(3):386-387.
6. Berlin A, Simon D, Tascilar K, Figueiredo C, Bayat S, Finzel S, et al. The ageing joint-standard age-and sex-related values of bone erosions and osteophytes in the hand joints of healthy individuals. *Osteoarthritis Cartilage.* 2019;27(7):1043-1047.
7. Gaine WJ, Mohammed A. Osteophyte impingement of the popliteus tendon as a cause of lateral knee joint pain. *Knee.* 2002;9(3): 249-252.
8. Okamura H, Ishikawa H, Ohno T, Fujita S, Yamakami S, Inagaki K. Arthroscopic osteophyte resection for osteophyte-induced popliteal impingement. *Arthrosc Tech.* 2022;11(11):e1883-e1887.
9. Liu K, Chen Y, Miao Y, Xue F, Yin J, Wang L, et al. Microstructural and histomorphological features of osteophytes in late-stage human knee osteoarthritis with varus deformity. *Joint Bone Spine.* 2022;89(4):105353.
10. Junker S, Frommer KW, Krumbholz G, Tsiklauri L, Gerstberger R, Rehart S, et al. Expression of adipokines in osteoarthritis osteophytes and their effect on osteoblasts. *Matrix Biol.* 2017;62:75-91.
11. Dregelid E, Jenssen G, Jonung T, Braaten A. Pseudoaneurysm of the abdominal aorta due to a needle-like osteophyte on the first lumbar vertebra. *J Vasc Surg.* 2007;45(5):1059-1061.
12. Takada S. The role of smoothened for the osteophyte formation in mouse osteoarthritis. *Osteoarthritis Cartilage.* 2014;22:S346.