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Alendronate/Colecalciferol

A Viewpoint by Nazzarena Malavolta

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Fractures are the hallmark of osteoporosis, a major health problem affecting both men and women. Guidelines recommend the use of pharmacologic agents in treating osteoporosis and preventing fractures in individuals at risk.

Since the early 1990's, a class of drugs called bisphosphonates has been investigated as potential treatment for osteoporosis and many studies have demonstrated their efficacy in enhancing bone mineral density and decreasing fracture rate.

Alendronate, a bisphosphonate and antiresorptive agent, was developed to reduce vertebral and non-vertebral fractures in postmenopausal women. It decreases bone turnover and does not appear to impair bone quality. Its most common side effects are related to the gastrointestinal tract.

Vitamin D is also an integral part of effective osteoporosis therapy. Many patients have inadequate vitamin D intake. Vitamin D supplementation in elderly people has been shown to increase bone mineral density and reduce the incidence of hip and other fractures when associated with calcium supplementation.

The therapeutic efficacy of alendronate and colecalciferol in osteoporotic patients is well established. Alendronate/colecalciferol 70mg/2800IU requires once-weekly administration of both alendronate and calecalciferol in a single tablet instead of daily administration of colecalciferol and once-weekly alendronate 70mg alone. A randomized clinical trial indicates that once-weekly alendronate/colecalciferol 70mg/2800IU improves vitamin D status in osteoporotic patients. It greatly reduces the risk of vitamin D deficiency in addition to its antiresorptive efficacy. Its safety and tolerability profile is similar to that of alendronate alone. Moreover, the increase in parathyroid hormone levels associated with treatment with alendronate alone is attenuated by concomitant administration of colecalciferol.

The once-weekly administration of alendronate/colecalciferol 70mg/2800IU offers practical advantages and facilitates short- and long-term adherence to treatment. However, this advantage remains speculative, as a result of such factors as the small sample size of clinical experiences. Further research is needed to compare patient satisfaction and to confirm the efficacy in reducing the risk of vitamin D insufficiency with alendronate/colecalciferol. ▲