What about strontium ranelate in osteoarthritis? Doubts and securities.

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Abstract

Abstract Osteoarthritis (OA) is the most common disabling joint disease worldwide and its treatment is based on a combination of non-pharmacological and pharmacological modalities. Commonly prescribed OA medications include symptomatic drugs (non-steroidal anti-inflammatory drugs, analgesics, locally administered corticosteroids, viscosupplementation) and new compounds that are potentially able to reduce or stop the disease progression, called "Disease Modifying Osteoarthritis Drugs (DMOADs)". Strontium ranelate (SR) is an anti-osteoporotic treatment that increases bone formation, while decreasing bone resorption and it potentially acts as a new DMOAD. The objective of this review is to summarize the currently available information on clinical effects and mechanism of action of SR in OA. We have examined two post hoc analysis conducted on the large, randomized Treatment of Peripheral Osteoporosis study and the double-blind, randomized, controlled trial about SR in knee OA. Furthermore, we analyzed three studies in animal models and two in vitro experiments to better understand the mechanism of action of SR in OA. The available data demonstrate that SR could be considered a new promising symptomatic and disease-modifying agent in the treatment of OA and was safe and well tolerated. Additionally, there is a need for further investigations to establish the optimal dosage and to better clarify the mechanism of action of SR in OA.

KEYWORDS: Disease modifying osteoarthritis drugs; Osteoarthritis; Strontium ranelate

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