Osteoporosis Medications and Oral Health

Oral Health Topics

Overview

There are approximately 10 million Americans aged 50 years or older with osteoporosis and an additional 34 million with low bone mass or "osteopenia," which puts them at risk for osteoporosis.[1] Due to related fractures, osteoporosis is responsible for considerable morbidity and mortality.[2-7] An estimated 1.8 million individuals suffer a bone disease-related fracture each year.[8,9]

Antiresorptive agents, like bisphosphonates and denosumab, often are used to treat osteoporosis, lowering the risk of related fractures. In rare cases, use of antiresorptive agents has been associated with osteonecrosis of the jaw. However, the risk of developing antiresorptive agent-induced osteonecrosis of the jaw (ARONJ) is low, with the highest prevalence estimated at 0.10% in a large sample of patients (n=952) who had taken oral bisphosphonates.[10]

Although osteonecrosis can occur spontaneously, more commonly ARONJ has been reported after dental treatments—most often invasive procedures like tooth extractions—in patients treated with antiresorptive agents.[11]

While it is not possible to identify who will develop ARONJ and who will not, research suggests the following risk factors exist[12-15]:

- Age older than 65 years;
- Periodontitis
- Prolonged use of antiresorptive agents (more than two years)
- Smoking

- Denture wearing
- Diabetes

Clinical Presentation

The typical clinical presentation of ARONJ includes pain, soft-tissue swelling and infection, loosening of teeth, drainage and exposed bone. Patients also may complain of numbness, heaviness and dysesthesias of the jaw. However, ARONJ may remain asymptomatic for weeks or months and may only become evident after bone in the jaw is exposed.[16]

Dental Management

NOTE: The recommendations discussed here apply only to patients who are prescribed antiresorptive agents to prevent or treat osteoporosis.
An expert panel assembled by the ADA's Council on Scientific Affairs developed recommendations for dental management of patients receiving medications for the prevention and treatment of osteoporosis.[17] Because there currently is no data from clinical trials evaluating dental management of patients on antiresorptive therapy, the recommendations are based on expert opinion alone. The report contains recommendations related to general dentistry, periodontal disease management, implant placement and maintenance, oral and maxillofacial surgery, endodontics, restorative dentistry and prosthodontics, and orthodontics. The panel also discusses C-terminal telopeptide (CTX) testing and drug "holidays."
The panel advises that clinicians ask questions about osteoporosis, osteopenia and the use of one of the various antiresorptive agents, during the health history interview process. However, routine dental treatment generally should not be deferred solely due to use of antiresorptive agents as the risks and consequences of no treatment likely outweigh the risk of developing ARONJ.

All patients should receive routine dental examinations. Patients who are prescribed antiresorptive agents and are not receiving regular dental care would likely benefit from a comprehensive oral examination before or early in their treatment. While neither the physician nor the dentist can eliminate the possibility of ARONJ development, regular dental visits and maintaining excellent oral hygiene are essential parts of risk management.

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Additional ADA Resources

- Search JADA for articles related to osteoporosis
- For the Dental Patient: Osteoporosis Medications and Your Dental Health (November 2011) (PDF) Accessed October 17, 2013
- ADA Library Services
- Search the ADA Catalog for products related to osteoporosis

Other Resources

- U.S. Food & Drug Administration MedWatch Program. If a practitioner suspects a patient to have ARONJ, they should contact the FDA's MedWatch program online or by calling 800-FDA-1088

The National Osteonecrosis Foundation