

CLINICAL SHORTS

A "brief" look at the literature



BONE OF CONTENTION

Recently, there have been many case reports describing an association between bisphosphonates and osteonecrosis of the jaws (ONJ), which refers to an area of exposed bone persisting for more than six weeks. Extraoral or intraoral sinus tracts and ulceration in surrounding tissues can also occur. Symptoms vary from painless exposed bone to severe pain. In advanced cases, radiography can reveal a moth-eaten poorly-defined radiotranslucency. The primary mechanism for ONJ may be impaired bone microdamage repair caused by oversuppression of bone turnover by bisphosphonates.

A recent review looked at this association. Over 90% of published cases were in patients with multiple myeloma or skeletal metastases who were receiving intravenous aminobisphosphonates (primarily pamidronate and zoledronic acid). However, 4% of cases were being treated solely for osteoporosis, usually with higher potency oral aminobisphosphonates (e.g., alendronate, risedronate).

ONJ prevalence was 3–10% among those receiving intravenous aminobisphosphonate therapy for multiple myeloma or breast cancer. Over 60% of cases were preceded by a dental procedure. The remaining 40% were probably related to infection, denture trauma or other trauma of the mouth. The mandible was affected twice as often as the maxilla.

A recent Australian position statement recommends that physicians discuss the following points with patients prior to prescribing bisphosphonates:

- Risks and benefits of bisphosphonate therapy (including ONJ) and other treatment options.
- Importance of maintaining good dental health.
- Consider dental referral if in doubt about the patient's dental health, particularly in those with cancer.

Dentists should be made aware of bisphosphonate dosage and other risk factors in patients on bisphosphonates. Extractions or other jaw bone surgery should be avoided if possible. In these cases, extractions should be performed under antibiotic prophylaxis, with minimal trauma. The socket should be sutured. ■

THE BOTTOM LINE:

There is an increasing body of literature suggesting an association between ONJ and aminobisphosphonates. Patients who are starting bisphosphonates should be informed of this association and the importance of maintaining good dental health. ■

Source: Woo S, Hellstein JW, Kalmar JR. Narrative review: bisphosphonates and osteonecrosis of the jaw. *Ann Intern Med* 2006;144:753–61.

Sambrook P, Oliver I, Goss A. Position statement: bisphosphonates and osteonecrosis of the jaw. *Aus Fam Phys* 2006;35:801–3.

PILL DRILL

Sometimes patients stop taking their medications after a time. Others never fill their prescriptions in the first place. What are the consequences of nonadherence to medications? Are there any patient or treatment factors associated with the discontinuation of medications?

A multicenter study looked at these questions in a prospective cohort of 1,521 patients with myocardial infarction (MI). Patients were prescribed β -blockers, acetyl-salicylic acid and statins on discharge following MI. The study looked at use of these medications one month later, as well as 12-month mortality. Medication use was assessed by telephone interviews.

The researchers found that almost 34% of patients had discontinued at least one medication at one month. Over 180 discontinued all three medications, 56 discontinued two medications and 272 discontinued one medication.

Which factors were associated with discontinuation? In multivariable analysis, patients not graduating from high school were more likely to discontinue use of all medications. Increasing age was also associated with discontinuation, especially in women. Variables included in analysis were demographic information, history, MI treatment variables (e.g., type of MI and revascularization status), psychosocial variables, patient enrolment site and educational level.

What were the consequences of nonadherence? Those who had discontinued use of all medications had a lower one-year survival than those who continued to take at least one medication (88.5 vs. 97.7%). In multivariable survival analysis, medication discontinuation was independently associated with higher mortality. This result was consistent when evaluating discontinuation of the three medications separately.

The authors emphasize that this study highlights the need to improve the care of patients in the transition from hospital to home to ensure that patients continue to take medications that have demonstrated mortality benefit after myocardial infarction. ■

THE BOTTOM LINE:

Discontinuation of medications after MI is common and occurs shortly after discharge. Patients who discontinue β -blockers, acetyl-salicylic acid and/or statins are at higher risk of dying in the first year following MI than those who continue to take their medications. ■

Source: Ho PM, Spertus JA, et al. Impact of medication therapy discontinuation on mortality after myocardial infarction. *Arch Intern Med* 2006;166:1842–1847.