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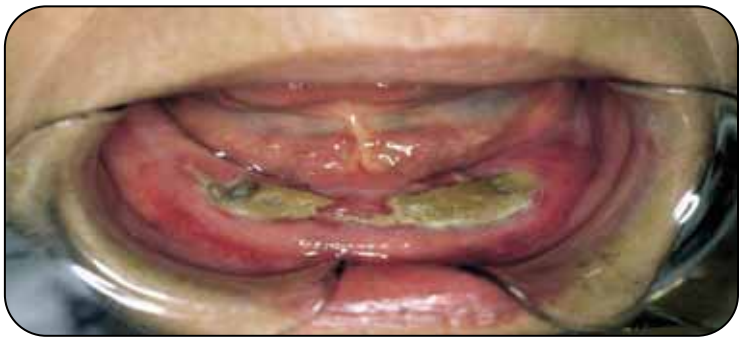
Bisphosphonate Medications and Complications!

Stay Informed

One area that we frequently see confusion is in the treatment and management of patients that are taking bisphosphonate medications. It's important to understand the issues these patients face with dental care as complications that arise are not easily treated. We also find that many physicians are not aware of these medical/dental complications and do not inform their patients regarding this prior to commencing treatment. While the incidence of complications with the oral forms are low, (estimates of 1:10,000 to 1:100,000), the risks to those on IV forms can range to 1 out of 3 (33%).Our goal with this newsletter is to update you on the current care recommendations for these patients and to allow you to convey these concerns to them as well.



In 2004, oral surgeons began to recognize and report cases of non-healing exposed bone in the jaws of patients treated with IV bisphosphonates.

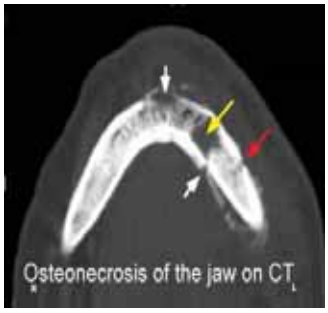
Osteonecrosis

It's interesting in that the lesions will resemble those seen in cases of osteoradionecrosis (ORN). However, unlike patients with ORN, lesions in patients with bisphosphonate related osteonecrosis (BRON) are not amenable to hyperbaric oxygen therapy. In ORN, tissue damage is characterized by hypoxia due to a poor vascular supply which is reversible to some degree. In BRON, the alteration in bone metabolism is such that an increase in vascularity alone does not alter the course of the lesions because the bisphosphonates have the potential to remain in the bone indefinitely. Another feature of BRON is that the maxilla is commonly involved whereas it rarely is seen in ORN. This highlights the fact that in ORN, the risk of injury may be minimized by a rich vascular supply whereas in BRON, a rich vascular supply may be responsible for the condition since the drugs reach the bone via the bloodstream.

**** This makes treating these patients complicated as it is difficult to find a margin of viable bleeding bone when debriding as you would in a radiation injury patient.***

Intravenous bisphosphonates are primarily used in the treatment and management of cancer related conditions.

Oral bisphosphonate drugs are commonly used by our patients to treat osteopenia and osteoporosis. They are also used for a variety of less common conditions such as Paget's disease and osteogenesis imperfecta but by far the most prevalent indication is for osteoporosis. Osteoporosis may arise in the context of other diseases such as inflammatory bowel disease or as the result of medications, most commonly steroids, or as a consequence of postmenopausal aging.



What are the drugs being used: * Fosamax (Alendronate Sodium) * Actonel (Risedronate Sodium) * Boniva (Ibandronate) * Atelvia (Risedronate) * Prolia (Denosumab) * Skelid (Tiludronate) * Didronel (Etidronate)

IV FORM: * Aredia (Pamidronate) * Zometa (Zoledronic Acid)

Reclast: *We are seeing more patients frequently being given Reclast by their physicians. Reclast is a low dose IV Zometa which as you know carries a high risk of BRON. It is given once a year instead of the oral forms. We don't really know what is going to happen with these patients and thus are recommending that they speak with their physicians and try to get back on an oral form.*

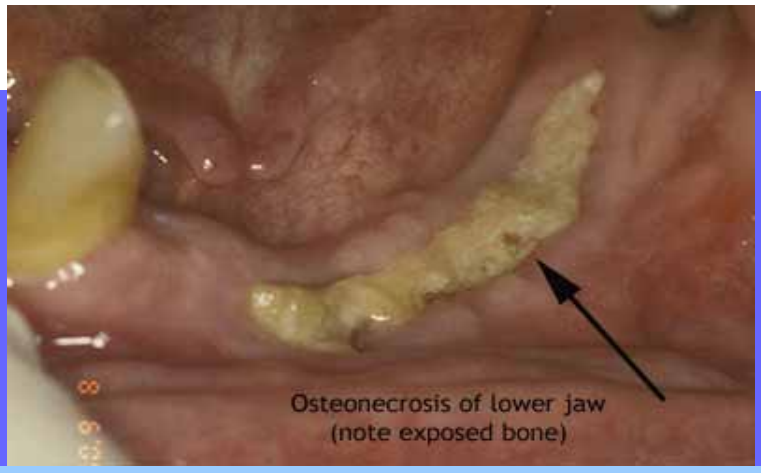
Who is at risk:

Patients taking oral forms for longer than 3 years and those taking IV forms for any reason. Patients that also have one or more of the following conditions are at an increased risk for complications: Corticosteroid therapy, diabetes, smokers, alcohol use, poor oral hygiene, chemotherapeutic drugs.

Management and Treatment of Patients on Bisphosphonate Medications

Oral Forms:

Routine dental treatment does not need to be modified for these patients. For any surgical procedure that involves manipulation of bone or periosteum, modifications may be needed. In our office for elective procedures, if the patient has been on oral forms for 3 years or longer, we stop the medication for 3 months before proceeding. If they have been on for 3 years or less, we proceed as usual but inform the patient of risks.



- *Any patient that is on these medications needs to be made aware of the risks of surgery and that should be reflected on the consent form.*

- *Note that infections can cause BRON as well and no waiting period is done with these patients.*

IV Forms:

Before any patients begins treatment with the IV forms, they should have a thorough dental exam and removal of any possible complicating areas. All decay should be treated, necessary teeth removed including those that will likely be ongoing periodontal problems and removal of any exostoses including sharp or large tori.

Once these patients have had these medications, they are no longer surgical candidates if at all avoidable. Endodontic therapy should be done to non-restorable teeth and then the teeth cut off at the gumline. Extreme care should be done when fitting full or partial dentures to avoid denture sores.

Reclast Patients: As mentioned, there is not good long-term research out yet. At the present time, we are treating these patients like the above after they have received 3 doses of the Reclast.

As Always, if we can be of any service to you or your patients, please don't hesitate to call on us.

Warmly,
The Doctors and Staff at Falls Oral Surgery

ORAL SURGERY & Falls DENTAL IMPLANT CENTER

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