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### Literature Abstract

#### Surgical management of bisphosphonate-related osteonecrosis of the jaw in oncologic patients: A challenging problem

The aim of this study was to analyze a single-institution patient cohort suffering from bisphosphonate-related osteonecrosis of the jaw (BRONJ) in various stages as well as their type of treatment and clinical outcome. One hundred forty-two patients (95 women and 47 men) with BRONJ ranging in age from 38 to 94 years (median: 62 years) were treated. Various surgical modalities were carried out, and patients were followed long term to investigate any surgical complication or residual BRONJ. The mandible was affected in 58% of patients, and the maxilla was involved in 27% of patients; 15% of patients had involvement in both arches. Ninety-seven percent of patients received intravenous nitrogen-containing bisphosphonates. The duration of bisphosphonate treatment ranged from 5 to 130 months, with a mean of 37.1 months. Eighty-six percent of patients required surgical treatment of the necrotic bone areas under local or general anesthesia. Conservative treatment, consisting of chlorhexidine oral irrigation and antibiotic medications, was effective in only 14% of patients. Sixty-four percent of patients presented with large exposed necrotic bone areas and required a marginal bone resection and soft tissue closure. Six patients (5%) suffered from extensive necrosis, infection, or pathologic fracture of the mandible and required a segmental bone resection and immediate rigid fixation with titanium reconstruction plates using a submandibular approach. Twenty patients (16%) required a soft tissue closure procedure using a myofascial flap from the mylohyoid muscle. One patient required intraoral soft tissue reconstruction using a fascio-cutaneous vascularized graft from the upper lateral arm. Forty percent of treated patients suffered from refractory BRONJ and required additional surgical interventions. It can be clearly seen that a large percentage of patients with BRONJ have a high morbidity rate, and a significant percentage of patients suffer from refractory BRONJ despite having treatment. The authors rightly emphasized the need for optimized oral and dental health and regular monitoring of patients treated with bisphosphonates, and this notion has to be clearly communicated to these patients.

**Eckardt AM, Lemound J, Lindhorst D, Rana M, Gellrich NC.** *Anticancer Res* 2011;31:2313–2318. **References:** 52. **Reprints:** Dr Andre M. Eckardt, Department of Cranio-Maxillofacial Surgery, Hannover Medical School, Carl-Neuberg-Strasse 1, 30625 Hannover, Germany. Email: eckhardt.andre@mh-hannover.de—*Elvin W.J. Leong, Singapore*

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