



## **“Enlarging palatal defect secondary to invasive microbial infection vs. Bisphosphonate-related maxillary osteonecrosis in a 60-year-old guamanian male patient: a diagnostic challenge”**

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### **Abstract:**

1. To present a case of bone necrosis in a 60-year-old male with multifactorial etiology involving the hard palate which includes the following:
  - 1.1. Opportunistic pathogens found in the oral cavity
  - 1.2. Systemic diseases which may delay resolution of the disease process
  - 1.3. Bisphosphonate therapy and its established effect on bone turnover
2. To emphasize the importance of proper diagnosis and identification of related risk factors in achieving proper management of a disease with atypical course
3. To illustrate the diagnostic dilemma involved in the management of palatal necrosis presenting clinically as an invasive microbial infection unresponsive to standard medical and surgical treatment

### **Method:**

- a. Study Design: A case report
- b. Setting: Tertiary hospital in Metro Manila
- c. Subject: One in-patient

### **Results:**

The patient in this particular case presented with osteonecrosis of the maxilla. Patient was placed on various antibiotic treatments which include broad-spectrum antibiotics and Penicillin G IV for 6 weeks, and surgical debridement with no resolution of bone necrosis. Bisphosphonate therapy was later on discontinued resulting to healing of palatal mucosa.

### **Conclusion:**

Maxillary osteonecrosis presents a diagnostic challenge due to the multifactorial nature of this pathology which can be easily missed without careful history taking and



proper diagnosis. Essential diagnostic imaging includes panoramic X-ray, plain and contrast CT scans, and MRI.<sup>1</sup> These help in differentiating BON from other conditions with similar pathology such as osteomyelitis, osteonecrosis, metastasis, or osteosarcoma.<sup>1</sup> Microbiologic and histopathologic examinations are also important in directing the proper management of bone osteonecrosis.<sup>1</sup> The standard medical treatment for this disease include Penicillin G IV for 2-6 weeks and broad-spectrum antibiotics targeting Actinomyces and other microbial organisms which can inhabit the oral cavity.<sup>2</sup>

### **Case Report:**

Several reports regarding palatal osteonecrosis have been reviewed and studied. By far, established associations with this disease are postanesthetic necrosis, nasomaxillary malignancies, embolization, and necrotizing fungal infection.<sup>5</sup> We are presented with a case of a 60 years old male with progressive palatal defect despite series of diagnostic tests, repeated biopsy, aggressive medical and surgical treatment. Failure of resolution despite the use of standard medical treatment, broad-spectrum antibiotics and surgical debridement prompted the need to further investigate on other possible related factors.

### **Publication of speakers:**

1. Jacqueline T. Cua-Lim, Bisdas S, Chambron Pinho N, Smolarz A, Sader R, Vogl J, Mack G. Bisphosphonate-induced osteonecrosis of the jaws: CT and MRI spectrum of findings in 32 patients. Clinical Radiology. 2006 Dec 11; 63(1),71-77.

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