



Contents lists available at ScienceDirect

Journal of Oral and Maxillofacial Surgery, Medicine, and Pathology

journal homepage: www.elsevier.com/locate/jomsmmp

Case Report

A case of recurrent multiple myeloma showing clinical features similar to medication-related osteonecrosis of the jaw (MRONJ)

Koji Tsunematsu^{a,b}, Takahiro Kanno^b, Joji Sekine^{b,*}^a Division of Oral and Maxillofacial Surgery, National Hospital Organization Hamada Medical Center, Asaimachi 777-12, Hamada, Shimane 697-8511, Japan^b Department of Oral and Maxillofacial Surgery, Shimane University Faculty of Medicine, 89-1 Enya-cho, Izumo, Shimane 693-8501, Japan

ARTICLE INFO

Article history:

Received 16 December 2015
 Received in revised form 1 April 2016
 Accepted 12 April 2016
 Available online 13 May 2016

Keywords:

Multiple myeloma
 Bisphosphonate
 Medication-related osteonecrosis of the jaw

ABSTRACT

We report a case of recurrent multiple myeloma in the mandibular ramus showing clinical features similar to those of medication-related osteonecrosis of the jaw (MRONJ) at the initial visit. A 53-year-old man was referred to our department for suspected MRONJ following repeated intravenous bisphosphonate administration, with the chief complaint of hypaesthesia in the mandible. The patient had been treated with bortezomib and cyclophosphamide plus dexamethasone for multiple myeloma as well as intravenous bisphosphonate (zoledronic acid). Radiographic examination revealed sclerotic bone and resorptive lesions in the mandibular angle and ramus. Given the history of myeloma, biopsy was performed for histopathological diagnosis. Biopsy results indicated a diagnosis of recurrent multiple myeloma and not MRONJ, and the patient was treated with lenalidomide and dexamethasone. Consequently, the hypaesthesia in the mandible improved without further growth of the lesion, and the tumor has remained under control so far during the follow-up of about 1 year.

© 2016 Asian AOMS, ASOMP, JSOP, JSOMS, JSOM, and JAMI. Published by Elsevier Ltd. All rights reserved. *

1. Introduction

Myeloma is often accompanied by systemic changes such as nodular proliferation of plasma cells in the bone marrow, bone destruction caused by abnormal monoclonal immunoglobulin elevation, major organ failure, and hematopoietic disorders [1]. Although multiple myeloma can affect various parts of the body, the oral region is rarely affected at the initial onset of the primary or recurrent lesion. Furthermore, clinical reports concerning multiple myeloma have rarely described primary manifestations in the mandible [2].

Recently, the efficacy of bisphosphonate for multiple myelomas has been well documented [3]. In 2010, the International Myeloma Working Group proposed guidelines for bisphosphonate preparations and treatment for multiple myeloma. However, the use of bisphosphonates for the treatment of multiple myeloma has been reported to cause a medication-related osteonecrosis of the jaw (MRONJ) [4]. Therefore, the treatment of multiple myeloma

necessitates close cooperation between medical and dental departments to provide interdisciplinary treatment and care. This is particularly pertinent, since lesions of multiple myeloma in the mandible are difficult to distinguish from MRONJ in terms of diagnostic imaging and clinical symptoms [5].

Here, we report an unusual case of recurrent multiple myeloma that manifested in the mandible with clinical features similar to those of MRONJ.

2. Case report

In December 2014, a 53-year-old Japanese man was referred to our department with the chief complaint of hypaesthesia in the left mental region. The patient had multiple myeloma involving the left sixth and eighth ribs, right second and seventh ribs, left clavicle, and left humeral head, for which he had been treated with bortezomib (1.3 mg/m²), cyclophosphamide (500 mg/m²), and dexamethasone (40 mg) in the Department of Hematology since January 2013. He had received bisphosphonate therapy (zoledronic acid, 4 mg every 28 days) from June 2013 onward for 19 months. The progress of multiple myeloma was halted following chemotherapy and administration of bisphosphonates for 1.5 years. However, the patient experienced paresthesia of the left mental area and mandible, and radiography revealed a radiolucent area in the mandible possibly indicative of osteonecrosis or osteomyelitis. The patient was

* Asian AOMS: Asian Association of Oral and Maxillofacial Surgeons; ASOMP: Asian Society of Oral and Maxillofacial Pathology; JSOP: Japanese Society of Oral Pathology; JSOMS: Japanese Society of Oral and Maxillofacial Surgeons; JSOM: Japanese Society of Oral Medicine; JAMI: Japanese Academy of Maxillofacial Implants.

* Corresponding author. Tel.: +81 853 20 2301; fax: +81 853 20 2299.
 E-mail address: georges@med.shimane-u.ac.jp (J. Sekine).

therefore strongly suspected to have developed MRONJ caused by the administration of bisphosphonates, and he was referred to our Department of Oral and Maxillofacial Surgery.

At the initial examination at our division, gum bleeding was observed in the left mandibular first molar alveolar region with possibly a fistula in which the mandibular bone was probed through it. Radiographic findings by panoramic radiograph show a radiolucent lesion in the left premolar area to mandibular angle possibly indicative of osteonecrosis or osteomyelitis (Fig. 1A). Also, the border of the lesion was unclear.

Computed tomography (CT) values in the mandibular first and second molar surrounding the bone were higher than another region (Fig. 1B). We thus made a possible preliminary diagnosis of MRONJ based on the clinical symptoms and his treatment history of medication course. We here suspected stage 2 MRONJ according

to the classification of American Association of Oral and Maxillofacial Surgeons position paper described in 2014 [4]. Subsequently, precise examinations to confirm the diagnosis were performed.

Magnetic resonance imaging (MRI) finding showed, on the other hand, the loss of the signal intensity within the marrow on the T1-weighted in the mandibular first molar surrounding the bone, and a soft tissue formation, measuring 26 mm, continuous with the bone cortex in the mandibular notch in the T2-weighted image. A T1-weighted image showed low intensity, meanwhile T2-weighted image showed moderate high intensity in the soft tissue mass (Fig. 1C and D). Fludeoxyglucose (^{18}F)-positron emission tomography–computed tomography (^{18}F -FDG PET/CT) revealed increased uptake in the left 6–8 ribs (SUVmax = 3.49), sternum (SUVmax = 4.02), left clavicle (SUVmax = 5.28), upper left humerus head (SUVmax = 2.71), and left mandibular ramus (SUVmax = 8.19)

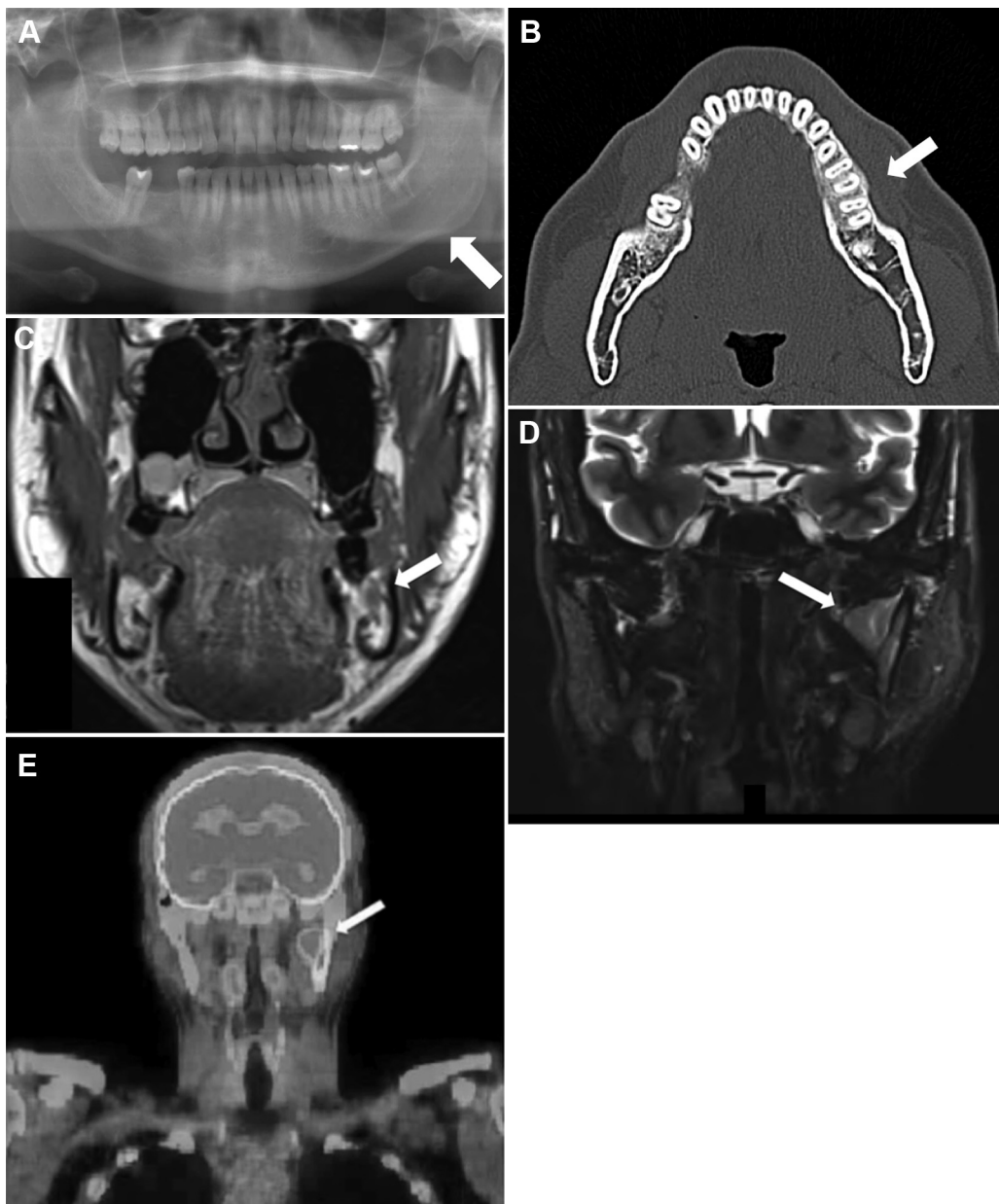


Fig. 1. Image findings. (A) Panoramic radiography of the mandible at the first examination (the arrow shows a radiolucent lesion in the left mandible possibly indicative of osteonecrosis or osteomyelitis). (B) Computed tomography values in the mandibular first and second molar surrounding the bone were higher than another region. (C) Magnetic resonance image showing infection of left side mandible bone on T1-weighted coronal images. (D) Magnetic resonance image showing a soft tissue formation measuring 26 mm, continuous with the bone cortex in the left mandibular notch on T2-weighted coronal images. (E) Fludeoxyglucose (^{18}F)-positron emission tomography–computed tomography (the arrow shows left mandibular notch image). Left side mandibular notch; SUVmax: 8.19.

Download English Version:

<https://daneshyari.com/en/article/3159722>

Download Persian Version:

<https://daneshyari.com/article/3159722>

[Daneshyari.com](https://daneshyari.com)