

原文題目(出處)：	Bilateral osteoporotic bone marrow defects of the mandible: a case report. Head & Face Medicine 2012, 8:22.
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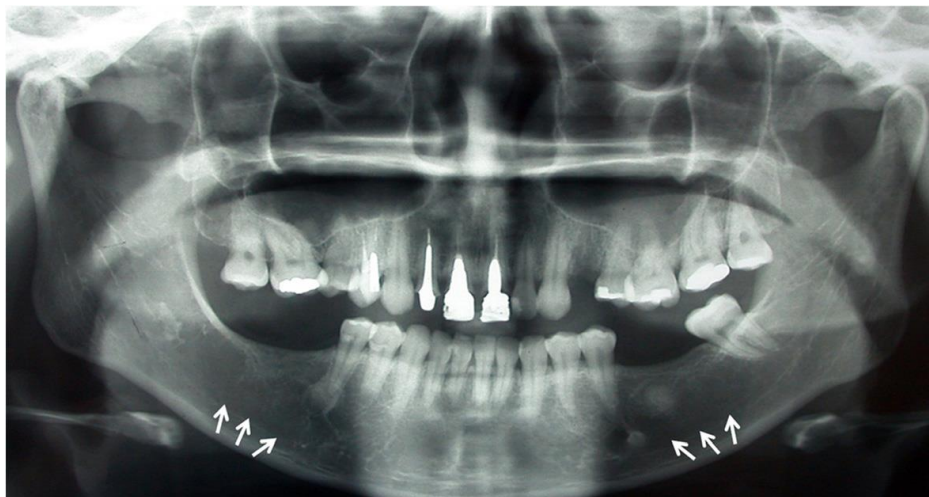
內文：

Background

1. The presence of hematopoietic marrow in the jaws is usually restricted to the angle of the mandible, the maxillary tuberosity and the condylar process
2. Osteoporotic bone marrow defect is a radiolucent area that corresponds to the uncommon presence of hematopoietic tissue found in others regions of the jaws
3. The defect is generally asymptomatic and is discovered incidentally during radiographic analysis.
4. the knowledge of the clinical, radiographic and histopathological characteristics in association with an accurate examination
5. This paper describes an unusual case of bilateral bone marrow defects

Case report

1. 32y/o, white woman, routine prosthodontic treatment. Intraoral examination: healthy mucosa and no any sign of infection
2. Panoramic radiography of the jaws showed 4 cm x 3 cm radiolucencies with quite ill-defined and irregular borders located **bilaterally** in molar edentulous regions
3. Two small sclerotic flecks were associated with left radiolucent area.



4. The lesions were asymptomatic and no expansion of the cortical jawbone
5. Provisional diagnosis: odontogenic cyst or tumor
6. Focal osteoporotic bone marrow defect was considered as a differential diagnosis based on age, site, clinical and radiographic findings
7. Histopathological examination revealed normal hematopoietic bone marrow characterized by erythroid, granulocytic, monocytic and lymphocytic series
8. The histopathological findings confirmed the diagnosis of osteoporotic bone marrow defects of the mandible

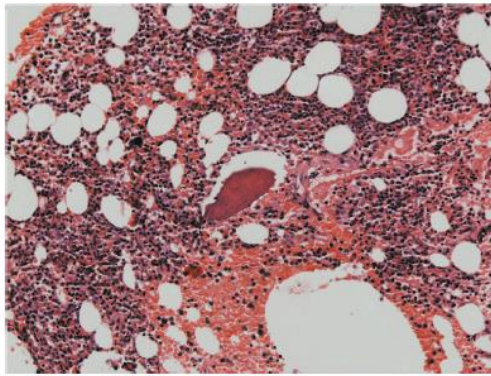


Figure 2 Histopathologic findings. Normal hematopoietic cells, fat cells and bone trabeculae. (Hematoxylin and eosin. Original magnification X200).

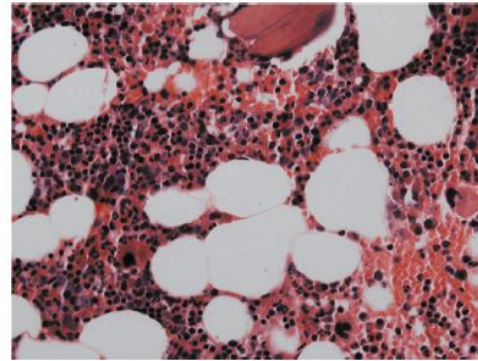


Figure 3 Microscopic details of the bone marrow. Erythroid, granulocytic, monocytic and lymphocytic series are illustrated, as well as megakaryocytes. (Hematoxylin and eosin. Original magnification X400).

Discussion

1. The osteoporotic bone marrow defect of the jaws: an unusual radiolucency often detected fortuitously in the posterior mandible of the **middle aged woman**
2. Radiolucency varies in size from several millimeters to centimeters, the shape and borders are ill defined
3. Frequently occurs in an edentulous region where tooth extraction was previously performed
4. Clinically, some osteoporotic bone marrow defects are **multifocal**, others **bilateral** and few of them are **symptomatic**
5. **Bilateral** mandibular involvement of the osteoporotic bone marrow is not frequently found in the literature
6. According to study conducted by Bouquot and collaborators based in the literature review and report of 596 new cases, the bilateral occurrence of osteoporotic bone marrow defect within the jaws affected **3 %** of patients
7. The bilateral radiolucent areas with indistinct margins suggested the presence of the mandibular benign cysts or tumors
8. Based on age, site, clinical and radiographic findings, the osteoporotic bone marrow defect was considered as a differential diagnosis
9. The final diagnosis of osteoporotic bone marrow defect should be established on microscopic features rather than clinical parameters
10. Regarding the etiopathogenesis of osteoporotic bone marrow defect of the jaws, three major theories have been proposed
 - a. Possible persistence in adult life of red embryonic marrow that had no conversion to fatty marrow
 - > if it were possible, similar distribution between adults and adolescents or children, but frequently patients in the fourth to sixth decade of life
 - b. The compensatory bone marrow hyperplasia were caused by increased functional demand for erythrocytes that occurs in systemic diseases including sickle cell anemia.
 - > of the series of cases reported in the literature only few found relationship between osteoporotic bone marrow defects and anemia
 - c. Deficiencies in bone repair in areas of previous trauma such as a tooth extraction, where the transient ischemia induce the osteoporotic bone marrow defects
 - > According to literature, yellow bone marrow contains mesenchymal progenitor cells capable of producing haematopoietic microenvironment and these cells were recently isolated from

mandibular marrow aspirates

Conclusion

The radiographic findings are not sufficient to establish an exact diagnosis and histopathological examination is indicate for suspected radiolucencies in the jaws

題號	題目
1	Which of the following is not a characteristic of osteoporotic bone marrow defects? (A) asymptomatic (B) Well-defined border (C) Middle-aged (D) Often in edentulous ridge
答案(B)	出處：Neville, Oral and Maxillofacial Pathology, 3rd ed, P. 620
題號	題目
2	What is the most appropriate treatment for osteoporotic bone marrow defects ? (A) Excision (B) Local enuleation (C) Decompression (D) No treatment
答案(D)	出處：Neville, Oral and Maxillofacial Pathology, 3rd ed, P. 620