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Florid cemento-osseous dysplasia at the bilateral posterior regions of the mandible with extension of the lesion to the left mandibular ascending ramus



KEYWORDS

Florid cemento-osseous dysplasia; Mandible; Ascending ramus

Correct diagnosis of florid cemento-osseous dysplasia (FCOD) is very important, because this lesion usually needs no further treatment.¹ In this case report, we presented a case of FCOD at the bilateral posterior regions of the mandible with extension of the lesion to the left mandibular ascending ramus in a 49-year-old female patient.

This 49-year-old female patient was referred to the dental department of our hospital for evaluation and treatment of a mixed radiolucent and radiopaque lesion at the left mandibular molar region with extension of the lesion to the left mandibular ascending ramus that was found incidentally by a regular radiographic examination of the teeth in a local dental clinic. The patient had no pain and discomfort at the left mandibular molar teeth. Moreover, there were no swelling at the left mandibular body and ascending ramus and no facial asymmetry. Intraoral examination also revealed no buccal and lingual expansion at both the right and left posterior regions of the mandible. The panoramic and periapical radiographies revealed two mixed radiolucent and radiopaque lesions involving the periapical areas of teeth 45 and 46 as well as teeth 36 and 37 with extension of the lesion to the left mandibular ascending ramus, respectively (Fig. 1A, B and C). Conebeam computed tomography confirmed none of bone expansion at the bilateral posterior regions of the mandible (data not shown). For obtaining correct histopathological diagnoses of the lesions, two biopsy specimens were taken from one lesion at the periapical area of tooth 37 and the other lesion at the left ascending ramus region. Microscopic examination of the two specimens taken from the lesion at the periapical area of tooth 37 (Fig. 1D and E) and the lesion at the left ascending ramus region (Fig. 1F and G) showed similar histological features. Both specimens were composed of relatively dense trabeculae of lamellar bone with a little fibrous tissues in the marrow spaces. None of the acute and chronic inflammatory cell infiltrates were discovered in the fibrous tissues. Taken the whole clinical, radiographic and histopathological findings together, a histopathological diagnosis of FCOD at the mature stage was confirmed.

Cemento-osseous dysplasia (COD) is one of the three types of fibro-osseous lesions of the jaws. COD can be further classified into focal, periapical, and florid variants.¹ Focal COD involves a single site, frequently the posterior mandible. Periapical COD predominantly affects the periapical region of the anterior mandible. Moreover, the FCOD demonstrates a tendency for bilateral and fairly symmetrical involvement of the mandible, and sometimes it may involve all four quadrants of the jaws. COD lesions are nonexpansile lesions with self-limiting growth and thus they may require no further treatment. However, the other two types of fibro-osseous lesions (fibrous dysplasia and ossifying fibroma) may cause jaw bone expansion that often needs surgical intervention.¹ Because the three fibro-osseous lesions of the jaws share similar histopathological features, clinical and radiographic examination data are absolutely necessary for correct diagnosis of these three lesions.¹ The COD lesions at the early stage

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Figure 1 Radiographic and histopathological photographs of our case of florid cemento-osseous dysplasia (A, B and C) Panoramic and periapical radiographs showing two mixed radiolucent and radiopaque lesions involving the periapical areas of teeth 45 and 46 as well as teeth 36 and 37 with extension of the lesion to the left mandibular ascending ramus, respectively. (D, E, F and G) Microphotographs (D and E, taken from the specimen removed from the periapical area of tooth 37; and F and G, taken from the specimen removed from the left ascending ramus region) exhibiting relatively dense trabeculae of lamellar bone with a little fibrous tissues in the marrow spaces. None of the acute and chronic inflammatory cell infiltrates were discovered in the fibrous tissues. (Hematoxylin and eosin stain; original magnification; D and F, $4 \times ; E$, $20 \times ;$ and G, $10 \times$).

show a radiolucency that may be misdiagnosed as a radicular cyst, a periapical granuloma, or a periapical scar.¹⁻⁴ Moreover, concomitant occurrence of FCOD with simple bone cyst has been reported in the literature.⁵ The most characteristic finding of our FCOD case is the extension of the radiopaque FCOD lesion to the left mandibular ascending ramus. After the histopathological diagnosis was confirmed, no further treatment to the FCOD lesions of our case was needed.

Declaration of competing interest

The authors have no conflicts of interest relevant to this article.

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