

A Large Asymptomatic Multilocular Radiolucent Lesion of the Mandible

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1. Case report

A 50-year-old woman was referred with an asymptomatic radiolucent lesion, which was found incidentally on radiographic view. The lesion was a well-defined multilocular radiolucency extending from the left mandibular molar regions to the right containing small radio-opaque foci (Fig. 1, 2). The extra-oral and intraoral examination was within normal limits with no evidence of buccolingual expansion. The adjacent teeth were vital. The patient's past medical history was clear.

2. Discussion

With the provisional diagnosis of an odontogenic keratocyst (OKC) and simple bone cyst (SBC), an incisional biopsy was performed. Little tissue and small amounts of serosanguineous fluid were obtained at the time of surgery. One focus of opacity was also removed. The microscopic sections revealed a band of myxofibromatous proliferation with reactive bone and infiltration of chronic inflammation, cholesterol clefts, and associated giant cells. There is no evidence of epithelial lining. Foci of woven bone intermixed with fibrocellular connective tissue are also seen (Fig. 3). Considering the aforementioned data, the diagnosis of SBC associated with cement-osseous dysplasia was made and the patient was under follow-up.

SBC is a pseudocyst that shows an empty or fluid-containing bone cavity without any epithelial lining (1). The etiology of SBC is indistinct, and several theories have been suggested including venous obstruction, blockage of interstitial fluid drainage, and local disturbance in bone growth (1, 2). The theory of trauma-hemorrhage is widely recognized among authors, which is indicated by the name "traumatic bone cyst". There is a predilection for mandible and younger age with no gender tendency (1). Most of the lesions are asymptomatic, although, expansion, pain, and paresthesia are mentioned rarely (3). SBC classically displays a well-defined, unilocular radiolucency.

However, ill-defined and multilocular lesions also are reported. The adjacent teeth are vital. SBC may arise in association with cemento-osseous dysplasia or other fibro-osseous proliferations (2, 3, 4). Such cases tend to occur in older females. The treatment of choice is surgical exploration and curettage. Periodic radiographic evaluation should be done until complete resolution, and the prognosis is excellent. SBCs associated with cemento-osseous dysplasia (multiple lesions), lesions with scalloped margins, the presence of lamina dura resorption, and multiple cavities increase the recurrence rate (5).

In conclusion, SBC may be found as a multilocular lesion with a large size, especially in cases with fibro-osseous lesions. Familiarity with these lesions leads to more accurate differential diagnosis and better lesion management.

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Authors' contribution

Shobeir Majdi: Conceptualization, Patient management, Writing – Original draft.

Ali Lotfi: Supervision, Writing – Review & editing.

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Conflict of Interest

None.

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Figure 1. CBCT shows a well-defined multilocular radiolucent lesion extending from the left to right molar regions of the mandible contains small radio-opaque foci.

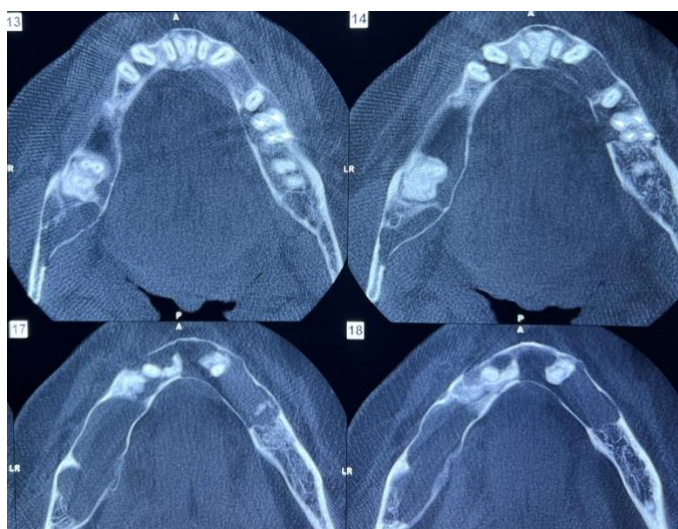


Figure 2. CBCT, axial view. Note the extension of the lesion compared to the expansion.

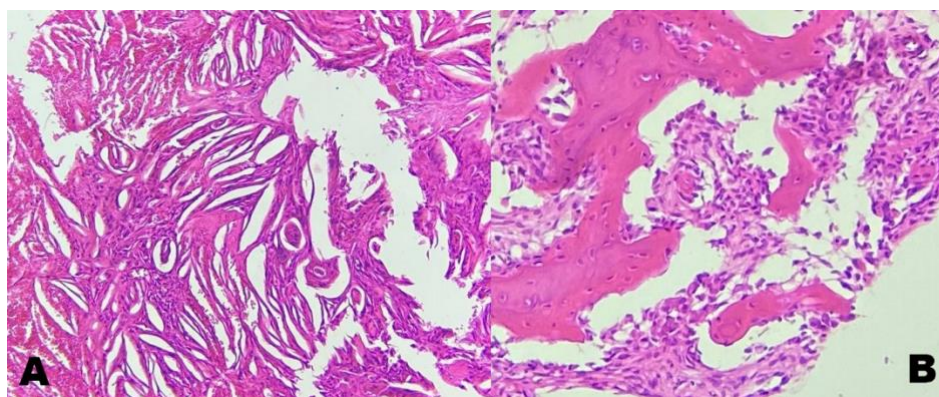


Figure 3. Histologic sections show many cholesterol clefts and associated giant cells (H&E, 100) (A), The fibro-osseous part contains woven bone intermixed with fibrocellular connective tissue (H&E, 400) (B).

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