

Maxillofacial Radiology 199

SADJ May 2022, Vol. 77 No.4, p240 - p241

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CASES

Two sisters presented with a family history of chronic episodes of osteomyelitis due to an underlying fibro-osseous bone disorder. The patients reported no co-morbidities or long bone fractures. What are the pertinent radiological features and your diagnostic hypothesis?



Figure 1: Panoramic radiograph of patient 1

INTERPRETATION

Both patients presented with extensive sclerosis limited to the tooth-bearing regions of the jaws. The areas affected by secondary osteomyelitis show radiolucent zones surrounding the radiopaque lesions (Figure 1). The first patient presented with a jaw fracture following a failed extraction attempt (Figure 1 - arrow). Due to the extensive bony sclerosis, associated impacted teeth are common (Figure 2).

Genetic conditions including hyperparathyroidism-jaw tumour syndrome (HPT-JT), gnathodiaphyseal dysplasia

(GDD) and familial florid cemento-osseous dysplasia (FFCOD) must be considered as part of the differential diagnoses. Following strict clinicopathological correlation, as well as the patients lacking a history of co-morbidities and long bone fractures, both HPT-JT and GDD were excluded.

FFCOD has a similar radiographic presentation to conventional florid cemento-osseous dysplasia with subtle differences. They are similar in that they present with mixed radiolucent-radiopaque lesions limited to the tooth-bearing regions of the jaws, characteristically affecting multiple quadrants. The conditions differ in that the familial variant presents at a younger age with an earlier onset of bone sclerosis, an increased propensity for expansion, and multiple tooth impactions. Additionally, the familial variant shows a decreased predilection for females. Both variants have a risk for the development of secondary osteomyelitis due to the hypovascularity of the bone. Therefore, optimal oral hygiene and preventive measures ensuring tooth retention must be prioritised. Extractions should be avoided as far as possible to reduce the risk of osteomyelitis, which is extremely difficult to treat in these instances.¹

These cases highlight the importance of radiographic imaging in the diagnosis of benign fibro-osseous lesions and for thorough case workup before dental interventions are performed.

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Figure 2: Panoramic radiograph of patient 2

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CPD questionnaire on page 242



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