

Maxillo-facial radiology case 109

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This nine-year-old Caucasian boy presented at the Dental Faculty with a history of a slow-growing swelling of the mandible in the 43-45 region. The time of onset was unknown. On examination, the lesion was about 3 cm in diameter. Pain, possibly from secondary infection was the main symptom. No other abnormalities were present. What is your diagnosis?



The intra-oral radiograph reveals a radiolucency of the alveolar bone surrounding the root of the 83. The primary tooth also gives the impression of a tooth "floating in space". Radiopaque material is also discernible within the soft tissue swelling. The cropped pantomograph shows a soft tissue swelling and disruption of the alveolar margin in the right canine and premolar region. Slight displacement of the 83 and 44 is discernible. An incisional biopsy specimen was taken and histology was reviewed by several pathologists. Some considered it to represent a benign osteoblastic tumour whilst others believed it to be a low-grade periosteal osteosarcoma. Block material was sent to the Armed Forces Institute of Pathology, Washington in the USA. Their diagnosis was that of a benign osteoblastoma. The tumour was removed by curettage and developing 43 and 45 tooth follicles were separated from the surrounding neoplasm and reimplanted. The lower right picture shows the tumour excised. The osteoblastoma is a rare benign neoplasm of bone composed of func-

tional osteoblasts and their products. It represents only 1% of all primary bone tumours. The osteoblastoma and osteoid osteoma are closely related benign osteoblastic lesions. The osteoblastoma is larger usually more than 1cm, and there is no surrounding zone of reactive bone formation. The osteoid osteoma is characterised by its small size, usually less than 1cm. It has a clearly demarcated outline and usually a surrounding zone of reactive bone formation. Radiographically an osteoid osteoma is characterised by a central radiolucent nidus surrounded by a sclerotic rim of bone. A sharply demarcated, rather dense area is typical of an osteoblastoma. Therapeutically local resection should be carried out, since the tumours are locally rather aggressive.

Declaration: No conflict of interest declared.

References

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