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Surgerywww.bjoms.com**Short communication****Calcifying epithelial odontogenic tumour presenting at a surgical site: case report**

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Abstract

We describe the management of a calcifying epithelial odontogenic tumour with an atypical clinical presentation at the site of a previously surgically exposed impacted maxillary canine in a 51-year-old woman.

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Keywords: Calcifying epithelial odontogenic tumour; Pindborg tumour; Impacted maxillary canine

Introduction

Calcifying epithelial odontogenic tumour is a rare, benign neoplasm of the jaws that accounts for less than 1% of all odontogenic tumours¹ and was first described by Pindborg in 1958.² Peak prevalence is in the fourth and fifth decades and it has an equal sex distribution. We report an unusual case that arose beneath the surgical site of a previously impacted maxillary canine after surgical exposure.

Case report

A 51-year-old white woman originally presented with a painless hard swelling adjacent to the upper right canine after the successful surgical exposure and bonding of the tooth 2 years previously. Treatment was continuing with fixed orthodontic appliances (Fig. 1). Radiological findings were unremarkable, and no previous clinical or radiological signs or symptoms of a bony lesion had been noted

before orthodontic treatment began. Surgical exploration of the area under local anaesthetic through a buccal flap showed a well-circumscribed mass of soft cancellous bone, which was curetted.

Histological examination (Fig. 2) showed multiple fragments that consisted mostly of irregular calcified masses composed of multiple coalescing concentric mineralisations (Liesegang rings). Surrounding them were areas of cellular fibrous tissue containing irregular islands of odontogenic epithelium; some cells showed occasional atypical hyperchromatic nuclei. These features supported diagnosis of a calcifying epithelial odontogenic tumour (Pindborg tumour).

Discussion

Clinically, these tumours are located either intraosseously (central) or extraosseously (peripheral), and have an incidence of 94% and 6%, respectively. Intraosseous tumours are locally invasive and often arise in the mandible. Extraosseous tumours present as painless and firm gingival masses, and they manifest in the anterior jaw. Most calcifying epithelial odontogenic tumours (52%) are associated with an unerupted tooth.³ Radiographically, they are commonly characterised

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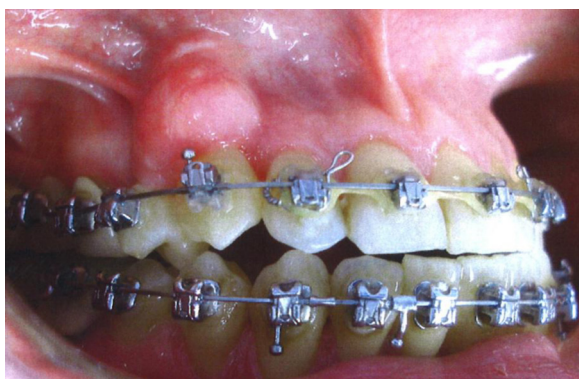


Fig. 1. Intraoral photograph showing the presenting mass above 13.

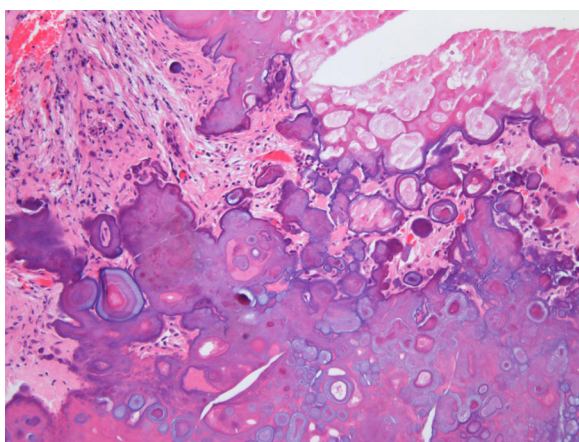


Fig. 2. Histological slide of the calcifying epithelial odontogenic tumour (haematoxylin and eosin, original magnification 10 \times).

as irregular, unilocular or multilocular radiolucent lesions that contain radiopaque masses of varying size and opacity. Radiographically, their appearance is often described as “driven snow”.⁴

The histological pattern of the tumour resembles polyhedral epithelial cells that are packed closely in large sheets

in bland fibrous connective tissue stroma. There is usually pleomorphism of epithelial cells with prominent intercellular bridges and pleomorphic nuclei. Mitotic figures are rarely seen. Some of these cells are also filled by calcified material in the form of concentric Liesegang rings.⁵

Treatment has ranged from simple enucleation or curettage (as in this case) for peripheral lesions to more radical resection for centrally located tumours. Recurrence can be as high as 14% over 5 years,⁶ which supports the need for clinical and radiographic follow-up.

To our knowledge, calcifying epithelial odontogenic tumour has not previously been associated with surgical sites in the oral cavity and it seems unlikely that it was present before the original procedure.

Conflict of interest

All the authors declare that there is no conflict of interest.

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