OPEN ACCESS Freely available online

ISSN: 2572-5629
Diabetes Case Reports

Commentary

Clinical and Diagnostic Observations on Calcifying Epithelial Odontogenic Tumor

Benyre Ashcombe*

Department of Oral Pathology and Maxillofacial Diagnostics, Westbridge University of Dental Sciences, Manchester, United Kingdom

DESCRIPTION

Calcifying epithelial odontogenic tumor, commonly referred to as Pindborg tumor, is an uncommon odontogenic growth that develops from epithelial elements linked to tooth formation. Although it is not frequently encountered in everyday dental practice, it attracts considerable attention in oral pathology due to its distinctive structure, slow enlargement pattern, and unusual mineralized components. The lesion is named after Jens Jørgen Pindborg, who first described its defining characteristics in detail, and it continues to be an important subject in diagnostic dental sciences.

This tumor most often appears within the jawbones, especially the posterior region of the mandible. Patients are usually adults, and the lesion is typically discovered during the third to sixth decades of life. One of the most notable features is its silent progression. In many cases, individuals do not experience pain or functional difficulty in the early stages. Instead, the condition slowly develops over time until a visible swelling or facial asymmetry becomes apparent.

Clinically, the lesion may present as a firm intraoral or extra oral swelling. As it enlarges, it can cause expansion of cortical bone, leading to a noticeable alteration in jaw contour. Teeth in the affected region may become displaced or show mild mobility due to pressure from the growing mass. Despite this, the lesion rarely produces acute symptoms, which often delays diagnosis until it reaches a more advanced stage.

Radiographic appearance plays a key role in raising suspicion of this tumor. In early development, the lesion may appear mainly radiolucent, resembling other odontogenic cysts or tumors. As it progresses, small radiopaque flecks begin to appear within the lesion. These calcified structures create a scattered pattern that gradually becomes more pronounced over time. In advanced cases, the internal structure may show a mixed pattern with dense radiopaque areas surrounded by radiolucent zones, producing a varied and textured radiographic image.

The biological behavior of the lesion is generally slow but persistent. It does not tend to spread to distant sites, but it can cause local bone expansion and gradual destruction of surrounding structures. The growth pattern suggests a prolonged interaction between epithelial cells and extracellular deposits, leading to progressive mineral accumulation within the lesion.

The origin of this tumor is thought to be related to remnants of odontogenic epithelium that remain within the jaw after tooth development. These residual cells may remain inactive for long periods before undergoing proliferation. The exact trigger for this activity is not clearly understood, but it is believed to involve local changes within the bone environment rather than systemic disease factors.

From a diagnostic perspective, one of the challenges lies in distinguishing this lesion from other jaw conditions that show similar radiographic features. Early-stage lesions can resemble cystic formations, while later stages may be confused with other calcifying odontogenic tumors. Therefore, histopathological analysis is essential for confirmation. The presence of epithelial sheets combined with amyloid-like deposits and calcifications provides a reliable diagnostic pattern.

Surgical removal remains the primary method of treatment. The extent of surgery depends on lesion size and bone involvement. Smaller lesions may be removed with conservative excision, while larger ones may require more extensive resection to ensure complete elimination. Because the tumor is locally persistent, incomplete removal may increase the possibility of recurrence, making careful surgical planning important.

Post-treatment recovery is usually favorable. Bone healing occurs gradually, and normal function is typically restored without long-term complications. However, follow-up imaging is recommended to monitor healing and confirm that no residual lesion remains. Regular review also helps ensure early detection of any unusual regrowth.

Correspondence to: Benyre Ashcombe, Department of Oral Pathology and Maxillofacial Diagnostics, Westbridge University of Dental Sciences, Manchester, United Kingdom, E-mail: benedict.ashcombe@wuds.ac.uk

Received: 27-May-2026, Manuscript No DCR-26-32207; **Editor assigned:** 29-May-2026, PreQC DCR-26-32207 (PQ); **Reviewed:** 12-Jun-2026, QC No DCR-26-32207; **Revised:** 19-Jun-2026, Manuscript No. DCR-26-32207 (R); **Published:** 26-Jun-2026, DOI: 10.35248/2161-1122.26.16.773

Citation: Ashcombe B (2026). Clinical and Diagnostic Observations on Calcifying Epithelial Odontogenic Tumor. J Dentistry. 16:773.

Copyright: © 2026 Ashcombe B. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

CONCLUSION

Calcifying epithelial odontogenic tumor or Pindborg tumor is a rare jaw lesion with a distinctive combination of clinical silence, gradual expansion, and unique microscopic calcifications. Although it develops slowly, it can lead to significant local effects if not identified in time. Careful radiographic evaluation and histopathological confirmation remain essential for accurate diagnosis and effective surgical management. In clinical practice, awareness of this lesion is important for dentists, radiologists, and oral surgeons. Its slow progression and lack of early symptoms mean that it can easily go unnoticed until it becomes more extensive. Routine radiographic examination often plays a key role in early detection.