

Case Report

UNUSUAL PRESENTATION OF CEMENTOBLASTOMA IN ANTERIOR MANDIBLE OF A 55 YEAR OLD FEMALE

Shamim Anjum¹ and *V. Sasidhar Reddy²

¹Conservative Dentistry & Endodontics, Indira Gandhi Govt. Dental College Amphalla Jammu (J&K)

²Department of Oral and Maxillofacial Surgery, Meghna Institute of Dental Sciences, Mallaram, Nizamabad, Andhra Pradesh, India

*Author for Correspondence

INTRODUCTION

True cementoma or cementoblastoma is a neoplasm of cementoblasts occurring commonly under the age of 20 years with mandible three times more likely to be affected as the maxilla and the most frequently affected tooth is the first molar, forming a large mass of cementum or cementum like material on tooth root. Cementoblastoma, was first described by Dewey (1927) as an odontogenic tumor of mesenchymal origin, which is characterized by proliferation of the cellular cementum. It is a quite uncommon odontogenic tumor (Corio *et al.*, 1976) with distinctive features, occurring almost always posterior mandible region (Kramer *et al.*, 1992; Vindenes *et al.*, 1979). Here we present an unusual case of benign cementoblastoma in the anterior mandible in geriatric patient.

CASES

A 55-year-old woman complained of a painless swelling in her lower anterior labial gingiva that she had first noticed 1 month before. Her medical history was noncontributory. The physical examination showed a well-developed, well-nourished woman in no apparent debilitating physical medical condition. On extraoral examination, her expression and the color of her face were normal. The intraoral examination revealed a painless, bony, hard swelling in the mandibular anterior labial gingiva (Figure 1). The overlying mucosa was normal, and the lower anterior teeth were immobile and asymptomatic. Intraoral periapical radiograph revealed a well-defined, round, radiopaque mass in contact with the roots of the mandibular central incisors (Figure 2). On the basis of the clinical and radiologic features of the lesion, a benign cementoblastoma was suspected. With the patient under local anesthesia, a trapezoidal flap consisting of a crevicular incision and two oblique vertical relieving incisions was raised to expose the area. The tumor was enucleated with apicoectomy of the mandibular central incisors (Figure 3). Histopathological examination indicated that the tumor was composed of cementum-like tissue with irregular radiating lines of lacunae, entrapped cells, and numerous basophilic reversal lines. At the periphery of the tumor, the tumor tissue was surrounded by a fibrous capsule composed of pleomorphic cells. Connective tissue was found at the periphery of the tumor and in the narrow spaces within the cementoid tissue. On the basis of the histopathological findings, the tumor was diagnosed as benign cementoblastoma. Follow-up clinical and radiological examination at two months revealed excellent bony regeneration with no evidence of tumor recurrence (Figure 4).



Figure 1: Intraoral examination showing obliteration of labial gingival in the anterior mandible

Case Report

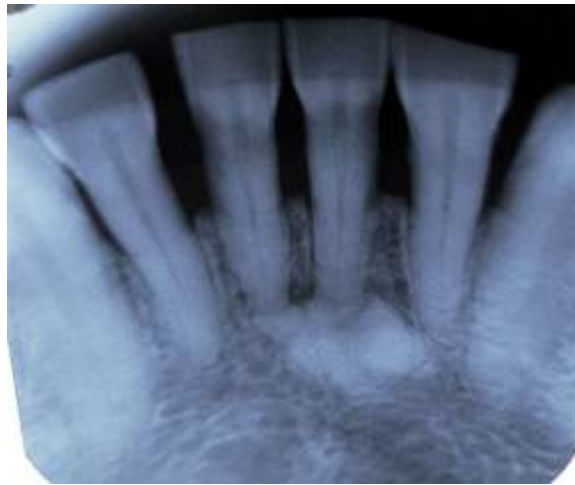


Figure 2: Intraoral periapical radiograph showing well defined radiolucency in relation to the roots of lower central incisors



Figure 3: The tumor was enucleated with apicectomy of the mandibular central incisors

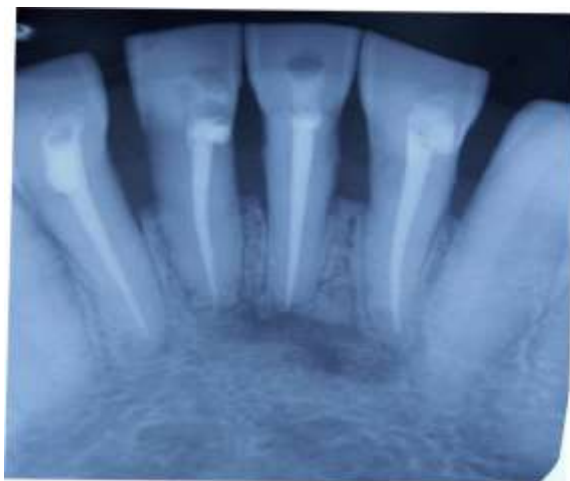


Figure 4: Intraoral periapical radiograph at two months revealing excellent bony regeneration with no evidence of tumor recurrence

Case Report

DISCUSSION

Cementoblastoma is also referred to as true cementoma. Benign cementoblastomas are characterized by formation of sheets of cementum or cementum-like tissue containing a large number of radiating columns and no mineralization at the periphery, but lined with large pleomorphic cells (Kramer *et al.*, 1992; Vindenes *et al.*, 1992). Benign cementoblastoma was earlier recognized in World Health Organization's classification of odontogenic tumors as a neoplasia of the cementoma (Ulmansky *et al.*, 1994). However recently the benign cementoblastoma has been included in the class of 'Mesenchyme and/or odontogenic ectomesenchyme, with or without odontogenic epithelium, odontogenic tumors. The lesion usually known to be derived from mesenchymal tissue, although exact etiology is unknown (Ulmansky *et al.*, 1994). Cementoblastomas are similar to osteoblastoma, osteosarcoma, and osteoma. However, Cementoblastomas and osteoblastomas differ in that the former are fused to a tooth (Slootweg, 1992).

These tumors are predominantly seen in young persons, although no significant sex predilection has been reported (Brannon *et al.*, 2002) some studies (Ohki *et al.*, 2004) indicate that males are more frequently affected than females, with more occurrences in mandible than maxilla. The tumor usually involves an erupted permanent tooth and in some rare cases with relation to primary tooth has been reported as well (Zaitoun *et al.*, 2007). The lesion is slow growing and usually asymptomatic, starting at the apex of the tooth, it is usually painless and the associated tooth is vital, and as it matures it obliterates the outline of the root on the x-ray where there is always a radiolucent margin surrounding it. Cortical expansion and facial asymmetry are common findings (Slootweg, 1992; Brannon *et al.*, 2002). Radiographically, the lesion usually presents itself as a radiopaque mass fused with a root or roots of a tooth and surrounded by a radiolucent halo (Chauhan, 2010). The differential diagnosis for such a periapical radiopacity includes lesions such as osteoma, benign osteoblastoma, focal sclerosing osteitis, focal osteomyelitis and osteosarcoma etc (Brannon *et al.*, 2002). Microscopic differential diagnosis between cementoblastoma and osteoblastoma, the direct connection with the radicular surface is the most significant finding (Chauhan, 2010; Ohki *et al.*, 2004). Because of the unlimited growth potential of the cementoblastoma, the usual treatment is complete surgical excision with extraction of the associated teeth. However we opted for conservation of involved teeth by endodontic treatment followed by surgical excision of the lesion with excellent post operative healing with no signs of recurrence.

Conclusion

Benign cementoblastomas are usually seen in young patients with more predilections to males and posterior mandible. Owing to the unlimited growth potential of cementoblastomas complete surgical excision with extraction of associated teeth has been advised in treatment of cementoblastomas, however here we presented and treated a case of benign cementoblastoma in the anterior mandible of a geriatric patient conservatively

REFERENCES

- Brannon RB, Fowler CB, Carpenter WM and Corio RL (2002).** Cementoblastomas: an innocuous neoplasm? A clinicopathologic study of 44 cases and review of the literature with special emphasis on recurrence. *Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and Endodontology* **93** 311-20.
- Chauhan B (2010).** A Case Report: Benign Cementoblastoma Associated with Impacted Third Molar. *Archives of Dental Sciences* **1**(1) 59-61
- Corio RL, Crawford BE and Schaberg SJ (1976).** Benign cementoblastoma. *Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and Endodontology* **41** 524.
- Dewey KW (1927).** Osteoma of a molar. *Dental Cosmos* **69** 1143
- Kramer IRH, Pindborg JJ and Shear M (1992).** Histological Typing of Odontogenic Tumours, Jaw Cysts and Allied Lesion. *Geneva, WHO* 23-24
- Ohki K, Kumamoto H, Nitta Y, Nagasaka H, Kawamura H and Ooya K (2004).** Benign cementoblastoma involving multiple maxillary teeth: report of a case with a review of the literature. *Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and Endodontology* **97** 53-8.

Case Report

Slootweg PJ (1992). Cementoblastoma and osteoblastoma: A comparison of histologic features. *Journal of Oral Pathology and Medicine* **21** 385

Ulmansky M, Hjorting-Hansen E, Praetorius F and Haque MF (1994). Benign cementoblastoma; a review and five new cases. *Oral Surgery, Oral Medicine, Oral Pathology* **77** 48-55.

Vindenes H, Nilsen R and Gilhuus-Moe O (1979). Benign cementoblastoma. *International Journal of Oral Surgery* **8** 318.

Zaitoun H, Kujan O and Sloan P (2007). An Unusual Recurrent Cementoblastoma Associated With a Developing Lower Second Molar Tooth: A Case Report. *Journal of Oral and Maxillofacial Surgery* **65**(10) 2080-2082.