Cementoblastoma—a review of literature

Abstract

Cementoblastoma is a rare odontogenic tumour of the jaws, which is a relatively rare odontogenic neoplasm of the jaws and is the only true neoplasm of cementum of origin.6 At a prevalence of less than 1% to 6.2%, it affects the younger population more. Their characteristic feature is their close attachment to the roots, which commonly involves the roots of the second premolar or first molar in the lower jaw. Its association with the impacted or partially impacted tooth is a rarity. They are usually asymptomatic, pain and swelling being the common findings if symptomatic.4

In the past, the benign cementoblastoma got recognized in the World Health Organization’s classification of odontogenic tumors as one of the cementoma neoplasia 4. Recently the benign cementoblastoma is included into ‘Mesenchyme and/or odontogenic ectomesenchyme, with or without odontogenic epithelium’ odontogenic tumors.6 Although etiology remains unknown, the lesion is derived from the mesenchymal tissue.5

There is a predominance of cementoblastoma in young individuals. As per the literature review by Ulmansky et al.,4 three-quarters (73%) of the individuals belonging to the age group below thirty. Although there are reports of nil sexual predilection, some authors have reported more male affliction when compared to females.9,10 The affliction of cementoblastoma is more towards the mandible than the maxilla. In the maxilla area, the maxilla is preserved, the and obturator had to be frequently adjusted during observation of the maxillary growth. The patient was followed up for nine years, and there were no signs of recurrence.

The treatment in most cases of odontogenic tumors in children is the complete excision with the extraction of the associated teeth. Van der Waal et al.11 also reports that the choice of therapy is the complete excision of the mass with the removal of the whole of the affected tooth. With incomplete removal, recurrence is frequent, and recurrence risk appears to be highest for those treated with curettage alone.

The treatment in most cases of odontogenic tumors in children is the complete excision with the extraction of the associated teeth. Van der Waal et al.11 also reports that the choice of therapy is the complete excision of the mass with the removal of the whole of the affected tooth. With incomplete removal, recurrence is frequent, and recurrence risk appears to be highest for those treated with curettage alone.

Introduction

In 1927 Dewey1 was the first to report a benign cementoblastoma, which is a relatively rare odontogenic neoplasm of the jaws and is the only true neoplasm of cementum origin.6 At a prevalence of less than 1% to 6.2%, it affects the younger population more. Their characteristic feature is their close attachment to the roots, which commonly involves the roots of the second premolar or first molar in the lower jaw. Its association with the impacted or partially impacted tooth is a rarity. They are usually asymptomatic, pain and swelling being the common findings if symptomatic.4

In the past, the benign cementoblastoma got recognized in the World Health Organization’s classification of odontogenic tumors as one of the cementoma neoplasia 4. Recently the benign cementoblastoma is included into ‘Mesenchyme and/or odontogenic ectomesenchyme, with or without odontogenic epithelium’ odontogenic tumors.6 Although etiology remains unknown, the lesion is derived from the mesenchymal tissue.5

There is a predominance of cementoblastoma in young individuals. As per the literature review by Ulmansky et al.,4 three-quarters (73%) of the individuals belonging to the age group below thirty. Although there are reports of nil sexual predilection, some authors have reported more male affliction when compared to females.9,10 The affliction of cementoblastoma is more towards the mandible than the maxilla. In the maxilla area, the maxilla is preserved, the and obturator had to be frequently adjusted during observation of the maxillary growth. The patient was followed up for nine years, and there were no signs of recurrence.

The treatment in most cases of odontogenic tumors in children is the complete excision with the extraction of the associated teeth. Van der Waal et al.11 also reports that the choice of therapy is the complete excision of the mass with the removal of the whole of the affected tooth. With incomplete removal, recurrence is frequent, and recurrence risk appears to be highest for those treated with curettage alone.

The treatment in most cases of odontogenic tumors in children is the complete excision with the extraction of the associated teeth. Van der Waal et al.11 also reports that the choice of therapy is the complete excision of the mass with the removal of the whole of the affected tooth. With incomplete removal, recurrence is frequent, and recurrence risk appears to be highest for those treated with curettage alone.

Goerig et al.13 has reported a case of benign cementoblastoma which was enucleated by apicectomy with no recurrence for a follow-up period of 4-years. This report goes on to establish that despite the technique used, complete removal is necessary and will help in the prevention of recurrence. Biggs et al.14, Keyes et al.19 suggested a more conservative method by retaining the involved tooth and the removal of the lesion through a surgical endodontic approach. He recommends this procedure for small lesions that can be completely enucleated without causing damage to the adjacent tooth and has the potential to maintain a sufficient crown-to-root ration following apicectomy.

Cintia Mussi et al.19 suggests that with an early diagnosis, the treatment can be achieved by minimal resection and the preservation of...
the affected tooth by thorough endodontic treatment and apicoectomy. In cases of late diagnosis with lesions that have reached considerable proportions, complete removal of the lesion and associated structures is recommended, preferably under general anesthesia, due to the unlimited growth potential and eventual recurrence. Kalburge et al. tried to retain the affected tooth and remove the tumor mass only but failed in preserving the tooth because of loss of support and resultant mobility. Thus they had to remove the tooth along with the attached tumor mass.

Conclusion

Cementoblastoma, a benign tumor, exhibits unlimited growth potential resulting in high recurrence rates following incomplete excision. Although there are authors who advocate retention of the affected tooth, the majority suggests the removal of the affected tooth. Unless the lesion is diagnosed at an early stage, we conclude that resection with removal of the affected tooth is the best mode of treatment. But the line between preservation between the retention and removal of the affected tooth is still in a gray area and should be decided upon the surgeon’s discretion.

Acknowledgement

None.

Conflict of interest

The authors of this article reports no conflicts of interest.

References