CEMENTOBLASTOMA

Cementoblastoma is a rare odontogenic tumor characterized by the formation of a mass of cementum or cementum-like tissue attached to the roots of a tooth. The cementoblastoma has been classified as a benign tumor of odontogenic origin derived from ectomesenchyme. It is an uncommon tumor comprising less than 0.69%–8% of all odontogenic tumors. The World Health Organization has classified benign cementoblastoma and cementifying fibroma as the only true cemental neoplasms; characterized by formation of sheets of cementum like tissue containing a large number of reversal lines and lack of mineralization at the periphery of the mass or in the more active growth area.

The tumor arises mostly in the permanent dentition with a few incidences being reported in primary teeth. The most common site for occurrence of cementoblastoma is mandibular molar area with 50% of the cases involving the mandibular first molar teeth followed by mandibular premolar. This tumor primarily affects adults with a mean age of 20.7 years. The male to female ratio has been reported to be 2.1:1 with a higher predilection for males. This tumor is also associated with multiple teeth, impacted molars and deciduous teeth. Cementoblastoma have unlimited growth potential. It can also behave in a locally aggressive manner resulting in bony expansion, root resorption, displacement of adjacent teeth, and jaw deformity.

Radiographically cementoblastoma presents as a round radiopaque mass confluent with the tooth root encircled by a thin radiolucent periphery fused with roots of a vital teeth. The root contour is lost due to root resorption and fusion with the tumor. It is a well demarcated lesion with considerable opacity in the central portion. The tooth is fused into the center of the mass. Recurrence and continued growth are possible if lesional tissues are left behind after initial surgery. Recurrence rate as high as 37.1% has been reported if there has been an incomplete excision. The prognosis without treatment , patient may be asymptomatic initially. As the condition worsens, they may exhibit symptoms similar to the standard toothache, such as a dull ache at the site of the mass. Others can include: Jaw pain or swelling, Earache, Minor dizziness, Minor nausea and Sensitivity. Symptoms may be totally absent and when they occur pain and swelling are frequent findings. Tooth displacement and resorption are common.

The differential diagnosis for the periapical radiopacity includes condensing osteitis, osteoblastoma, odontome, periapical cemental dysplasia, and hypercementosis. The condition demonstrates symptoms similar to osteoblastoma, another fibrous lesion. The difference in the two conditions is that cementoblastoma develops directly onto the tooth’s root; osteoblastoma does not.

The most effective method of treatment is extracting the affected tooth and mass. Surgical excision of the mass with root amputation and endodontic treatment of the involved tooth is another option. This disease is relevant to me as dental hygienist because the mass does grow slowly and can cause discomfort for the patient as it gets larger. And if left untreated, or if the mass is not removed completely, it will likely expand and affect other teeth and impact the healthy tissue.