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Pathology

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Cementoblastomas

Cementoblastomas are a rare, benign odontogenic tumor consisting of a proliferation of cementum. They are of mesenchymal origins. Cementoblastomas are also commonly known as cementomas or true cementomas. Cementoblastomas are an overgrowth of cementum that is attached to the roots of a tooth. There is no known etiology at this time. It is more commonly seen in men and in teens or young adults. It is usually seen in the mandibular molars or premolars of the permanent dentition. Teeth affected by cementoblastomas are usually vital. Most patients with cementoblastomas are usually asymptomatic due to its slow growing nature, but can cause pain if it affects the pulp canal. Patient may begin to feel pain or pressure within the jaw if the mass has grown to a significant size. When cementoblastomas grow to this size there can be buccal lingual expansion of the bone resulting in pain. Patients may also experience tooth mobility, resorption of roots upon x-ray, and teeth displacement.

A diagnosis is usually made with radiographs, but a biopsy can be performed. Cementoblastomas are typically dense and round with a well defined border. Upon x-ray they appear as a radiopaque mass with a radiolucent outline at the apex of the roots. To confirm a cementoblastoma on biopsy you will see a cementum like substance. Cementoblastomas are commonly treated by extraction of the affected tooth. It can also be treated by removal of the mass with an apicoectomy, and a root canal. There is a high rate of recurrence with incomplete removal, so

curettage is often recommended after removal. Without treatment the mass will continue to grow, which will increase chances of resorption, mobility, displacement and pain.

When seeing a mass of this appearance there are several differential diagnosis that can be considered. Two main differentials are osteosarcoma and osteomas. An osteosarcoma is a malignant bone tumor that is more often seen in long bones, but can also be seen within the jaw bones. Osteomas are also a proliferation of bone, but they are benign. Both are caused by overactive osteoblasts. Like cementoblastoma they are more common in the mandible and presents with pain, swelling, teeth displacement and mobility. Upon radiographs all will appear as a radiopaque mass. To differentiate between either of these and a cementoblastoma it must be determined if the mass is attached to the roots or originating from the bone. A biopsy can also be performed to check for the presence of osteoblasts or cementum.

Cementoblastomas are relevant to a dental hygienist because patients many times come in complaining of pain that they may think is caused by caries. As a health care provider it is our job to figure out the source of this pain. When seeing this radiopacity upon an x-ray we need to be able to recognize this in order to make a decision on what treatment the patient should seek. If you are a hygienist working in a hospital it is not uncommon for patient to ignore pain and to only seek treatment when swelling of the face or tooth mobility occurs. At this point it is important to have some idea of what could be the cause when trying to treat this patient. Cementoblastomas are not a danger to our patient's health, but because of their ability to continue to grow it is important to remove them completely to stop any effects on the other teeth.

Citation

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