**Cementoblastoma**
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 **Overview**
A cementoblastoma is a rare benign odontogenic tumor that occurs in people. It occurs when neoplastic cementoblasts attach to the roots of the teeth. It normally occurs in people who are young adults in their 20s and it can also be found in the mandible in the molar and premolar areas. On dental radiographs, it appears as a big radiopaque mass over the roots of the teeth. Some symptoms that can occur with this tumor are pain and swelling while biting and since the tumor can get relatively large it can shift the teeth. Usually, surgical removal of the cementoblastoma is the treatment for this tumor and the reoccurrence rate is fairly low if excision is done properly.

**Etiology**
Cementoblastoma's cause is currently unknown but it is considered a true neoplasm of cemental origin. Its origin is from mesenchymal tissue and ectomeschnyme cells. It is considered a rare lesion and contributes to a fairly low percentage of odontogenic tumors.

**Clinical Presentation**

The patients can present with severe pain and swelling of the mandible. The swelling can be located in cheek areas or the cortex of the jawbone. This can then cause the face to look unsymmetrical because of the facial swelling that develops. There is also sensitivity when the lesion is touched. Patients who experience symptoms can be in a lot of discomfort and it can be hard to do simple activities that involve the jaw. Since these are some of the symptoms, patients can come in and report changes to their face. They can also complain that there is unbearable pain in the jaw while they eat or bite anything, However in most cases, patients can present as asymptomatic and the teeth are typically vital despite the pain.

**Demographic**
Cementoblastomas are commonly seen in young adults in the second to third decades. They are also commonly seen in young adults and children. In terms of gender, it can be more commonly seen in males. According to statistics most benign cementoblastomas occur in ages below the age of 30.

**Biopsy / Histology / Radiographs**
A radiopaque mass that is attaches to the apices of the teeth. It is then surrounded by a radiolucent zone. On A panoramic radiograph, you may also see some tooth resorption specifically on the roots of the teeth. This would lead to loss of root structure as well. You can also see the movement of adjacent teeth due to the swelling mass of the cementoblastoma which results in malocclusion. You can also see some bone expansion, cortical erosion, and some loss of periodontal ligament space in the radiographs. On the histological side of cementoblastomas, they can appear as the cementum cells inside of the fibrovascular stroma. You can also see the basophilic lines embedded in the cementum. Osteoclast and giant cells can be present as well. The rimming that presents as the radiolucent zone is the connective tissue producing the unmineralized tissue. A biopsy that you can take for a cementoblastoma is an excisional biopsy. This type of biopsy is the removal of the cementoblastoma tumor itself and the teeth that are affected by it. This can allow the examiners to properly test the lesion and treat the patient.

**Differential Diagnosis**
Fibrous dysplasia

Osteosarcoma

Hypercementosis

Osteoblastoma

The reason why these pathologies can be mistaken for cementoblastoma is because they can look similar radiographically. Some of these lesions can present as a large radiopaque mass over the roots. Also histologically can look similar as well. This is the importance of biopsies because it can detect the cemental cells that are attached to the roots.

**Treatment**
The best treatment for patients with cementoblastoma is to have them go through surgery for excision of the lesion itself. Treatment also includes extracting the adjacent teeth that are affected. This ensures the complete removal of the cementoblastoma if the teeth have been connected along with it. Surgical enucleation is another option to treat cementoblastoma. This type of treatment keeps the affected tooth and simply removes the cementoblastoma. This can be an option for patients who want to keep their natural teeth. Another treatment includes root amputations, this is just a surgery where you remove the affected root of the teeth. In some cases, after the treatment is done, patients would need to follow up with endodontic treatment as well. This can be done to maintain the natural teeth during some of the treatments mentioned.

**Prognosis**
After treatment is done patients should follow up with their provider to check for recurrence of the cementoblastoma. The recurrence rate is fairly low but in the low chance that it does come back providers need to take dental x-rays and monitor their patients so that they can treat them early on. The X-rays can also tell if there is any damage to adjacent teeth where the cementoblastoma was. This is where restorative treatment comes into play to restore any teeth that were damaged and give patients more of an aesthetic appearance as well. However, to prevent any of these treatments mentioned it is important to have an adequate removal of the tumor so it does not require any additional treatment in the future. Fortunately, since the recurrence rate is low most patients would just need to attend their follow-up appointments as a good prognosis.

**Professional Relevance**

Cementoblastomas are relevant to me as a dental hygienist because as a first-line provider, I have to recognize the early signs of this lesion and notify the dentist or doctor so they can treat it. Patients want to rely on me as a provider to ensure they are always healthy and there are no abnormalities affecting their health. This is why it is important is always ask how the patients are feeling since their last visit and do a thorough intraoral exam because even though cementoblastomas are not life-threatening, some life-threatening things can go unnoticed. Also, something like cementoblastoma could affect patients' hygiene. If the teeth are shifting it can cause malocclusion and it can be harder for patients to clean their teeth. Also, if patients have facial swelling they are less likely to spend more time cleaning their teeth and it can be even harder to floss. That’s why it is important to treat these tumors even though they are benign because the patients are in discomfort and it can lead to inadequate dental hygiene as well.

**Citations**
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