Odontogenic Myxoma

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What is an odontogenic myxoma? An Odontogenic myxoma is a rare benign

mesenchymal tumor arising from the embryonic connective tissue associated with tooth

formation. Out of all odontogenic tumors, 3 to 6 percent are odontogenic myxomas. The

prevalence of seeing a patient with a myxoma is 0.04 to 3.7 percent. 2 Its’ etiology is unknown

but it appears to originate from the dental papilla, follicle or periodontal ligament. These tumors

are predominately found centrally in the mandible and have a slight tendency to occur more in

females than men occurring in the second or third decades of life.5 Most commonly, odontogenic

myxomas are slow growing and locally invasive, but usually present as painless swelling. An

unusual clinical presentation of this tumor is displacement of teeth, pain and paresthesia. When

these clinical presentations occur, the lesion can be considerably large in size and the patient will

then be aware of its presence and seek treatment.1

Radiographically, this tumor can be a radiolucent unilocular or multilocular lesion with

well defined borders. It can also present a “honeycombed,” “soap bubble,” or “tennis racket”

appearance with the tumor scalloped between the roots. A unilocular appearance is usually found

in the anterior mandible while tumors with a multilocular usually appearance occur in the

posterior mandible. It is not common for this type of tumor to occur in the maxilla even though it

is possible.5 Although root resorption is rarely seen, the displacement of teeth is a very

common finding.2

Histologically, this tumor looks like the mesenchymal portion of a developing tooth. It is

not in a capsule and is composed of a disorganized arrangement of stellate, spindle shaped or

round cells in a myxoid stroma. In that stroma, only a small portion of it consists of a few

collagen fibrils and odontogenic epithelium.2 Odontogenic myxomas can easily be confused with

other periapical pathology and therefore a biopsy is needed. When the tumor is unilocular it can

be confused as lateral, periodontal, periapical or traumatic bone cysts. When the tumor is

multilocular it radiographically looks like an ameloblastoma, central hemangioma and

odontogenic keratocyst.5

Even though this type of tumor is benign, there is a 25 percent recurrence rate after

curettage alone. In certain cases when the tumor is too large to curette out, a resection is

necessary for the affected area. Small unilocular lesions have been successfully treated with

enucleation. For multilocular odontogenic myxomas, resection of the tumor with an appropriate

portion of surrounding bone is required. It is crucial for the surgeon to remove the whole lesion

intact because of the high recurrence rate.4 After treatment, patients should have a close follow

up with their surgeon for the first 2 years to make sure there is no recurrence of the tumor.

Patients should still occasionally have that area checked after the 2 years because sometimes the

recurrence appears much later.3

It is the role of the Dental Hygienist to detect oral pathology. Oral pathology is

important because serious health issues could come into play even though there are may not be

any symptoms or pain. Sometimes the best indicator of a problem is a visual examination or

exposing routine radiographs. Without Dental Hygienists, pathology such as odontogenic

myxomas, will go undetected and may become life threatening.1

In conclusion, odontogenic myxomas are rare benign tumors that occur in patients that

are 10 to 50 years of age. Seeing a myxoma in children under 10 years old is very rare. The

mandible is usually affected more than the maxilla and females are slightly affected more than

males. These tumors have a tendency to be bone destructive, affect surrounding structures and if

not removed properly, there is a relatively high recurrence rate. There are different radiographic

appearances for these tumors such as unilocular or multilocular with different types of patterns.

Because odotogenic myxomas are not enclosed in a capsule curettage is not enough for

treatment. It is recommended for these types of tumors to be surgically removed and to have a

follow up for the first 2 years.2 Therefore it is important to have routine dental hygiene services

in order for any oral pathology to be detected.

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