

Orbital Involvement Of Odontogenic Myxoma: A Case Report

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Abstract

Odontogenic myxoma is a rare tumor that usually presents as an intraoral lesion arising from the mandible or the maxilla. We present a patient who presented with left proptosis and facial swelling. We believe this to be the first such reported presentation of odontogenic myxoma. This rare presentation was successfully treated via lateral rhinotomy incision. Relevant literature is discussed.

CASE REPORT

A 28 year old Malay lady presented to our clinic complaining of left sided facial swelling and left proptosis for 1 month. The swelling was painless but progressively increasing in size. Otherwise, she was asymptomatic.

On examination there was facial asymmetry with bony hard swelling of the left maxilla and proptosis of the left eye. There was a firm nasal mass obliterating the left nasal cavity. There was some bulging of the left hard palate but no growth was noted in the oral cavity. Cranial nerves were all intact.

Initial biopsy of the left nasal mass proved inconclusive and subsequently examination under anesthesia and biopsy was performed. Histopathology of this specimen revealed voluminous amount of loose edematous myxoid connective tissue stroma with some attached bony specules and was reported as a benign soft tissue tumor, possibly odontogenic myxoma.

CT scan of the lesion showed non enhancing soft tissue mass in the left maxillary antrum exhibiting aggressive characteristics by expanding and destroying its walls and extending into the nasal cavity and left orbit (figures 1). Calcific bits were seen within the mass. The left orbit was displaced upwards and all the left paranasal sinuses were opaque. The brain was normal.

The patient subsequently underwent lateral rhinotomy, medial maxillectomy and excision of tumor. Intraoperatively, there was a firm mass filling the entire left

maxilla and expanding the anterolateral wall, posterior wall and the floor of the orbit. Fortunately the orbital capsule was intact except for a small area of erosion posteriorly. The tumor completely filled up the anterior and posterior ethmoids, eroded through the lateral wall of the nose, filled up the left nasal cavity and extended up to the skull base.

Postoperatively the patient recovered well with no visual defects. Currently she is on our regular follow up and is asymptomatic. The proptosis and cheek swelling have subsided. Histology of the resected specimen confirmed the diagnosis of odontogenic myxoma.

DISCUSSION

Odontogenic myxoma is a rare tumor that is considered benign but nevertheless has the potential for extensive bony destruction, extension into surrounding structures and relatively high recurrence rate. Histologically, the diagnosis of this tumor may present some difficulty as its' bland features of a monotonous proliferation of loose mesenchymal fibrous tissue that lacks atypia lends itself to misdiagnosis¹. The primitive dental pulp, the dental papilla and the tooth follicle are histologically similar to myxoma and may be easily misinterpreted as odontogenic myxoma ¹.

The frequency of odontogenic tumors ranges from 0.8% to 3.7% of all maxillofacial and oral tumors. Of these, 98.8% were benign and 1.1% were malignant. The most frequently occurring tumors were odontoma (34.6%), ameloblastoma (23.7%), myxoma (17.7%), adenomatoid odontogenic tumor (7.1%) and calcifying odontogenic cyst (6.8%) ².

Odontogenic myxoma arises from mesenchymal odontogenic elements and mimics the dental pulp. In a review of 164 cases of this tumor, 75% occurred in the 2nd to 4th decade of life with a male to female ratio of 1:1.5. A further review of the radiological features of 96 cases revealed 55% to be multilocular, 36% unilocular and 9% were not loculated. Only 5% of these tumors were associated with an uninterrupted tooth 3.

Due to the benign nature of this tumor the chief treatment modality is surgical excision. A preoperative CT scan is essential for assessing resectability and deciding on the procedure to be employed. A conservative surgical approach, which involves local excision and sparing of uninvolved structures to allow for preservation of function has been suggested 4. Rarely, they become large enough to cause orbital symptoms as in this case.

In conclusion, the diagnosis of odontogenic myxoma needs to be considered when faced with a young patient with features suggestive of a paranasal sinus tumor. The available

evidence to date suggests adequate surgical excision with preservation of vital structures as the treatment of choice. Diligent follow up is required and any recurrence needs more aggressive surgical treatment.

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