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Case Report

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CEMENTO-OSSIFYING FIBROMA: REPORT OF A RARE CASE

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SUMMARY

Purpose: the article examines the six-month dynamics of indicators of cardiorenal syndrome and cardiac remodeling disorders in 101 patients with end-stage chronic kidney disease receiving regular hemodialysis, as well as the importance of antiplatelet therapy for the prevention of cardiovascular diseases and other thromboembolic complications caused by these disorders. These findings are reflected in the results of our research.

KEYWORDS: Chronic kidney disease, antiplatelets, planned hemodialysis, echocardiography, systolic, diastolic, altrombosepin.

INTRODUCTION

Cemento-ossifying fibromas are rare fibro-osseous benign neoplasms of mesodermal odontogenic group affecting the jaw. These commonly affect females in the second or third decade. 60% of the lesions involve mandibular arch, predominantly the premolar/molar area and present as a progressive facial swelling that may attain enormous size causing obvious facial deformity.

CASE REPORT

A 35 year old female presented to ENT OPD with the chief complaint of swelling in the left side of face from past 6 years. The swelling was painless, insidious and progressive in nature. General physical examination was within normal limits. On local examination there was fullness with ill-defined borders over the left side of the face. The overlying skin was grossly normal.

Fig. 1: The patient on presentation showed swelling over the left side of face.

Fig 2: X-ray PNS waters view and lateral view was done which showed a radiopaque shadow in the region of the left maxillary sinus seen extending to involve the tooth bearing region of maxilla inferiorly, nasal septum medially and buccal fat pad laterally. However, no definite erosion,destruction of the adjoining bones could be demonstrated.

CECT PNS region was acquired on 64 Slice MDCT Light Speed VCT GE scanner and the lesion was evaluated for its imaging character, extent and relation to the surrounding structures.

CECT PNS axial scans showed a well-defined lesion expanding left hemi-maxilla and jaw, projecting and near completely effacing the left maxillary sinus, deviating medial wall of left maxillary sinus medially and partially obliterating left nasal cavity. Calcification was more in the central part with well- defined hypo attenuating soft tissue density peripheral rim just lining the intact overlying cortex. Surrounding bones and teeth were normal, no other lesion or associated soft tissue was detected.

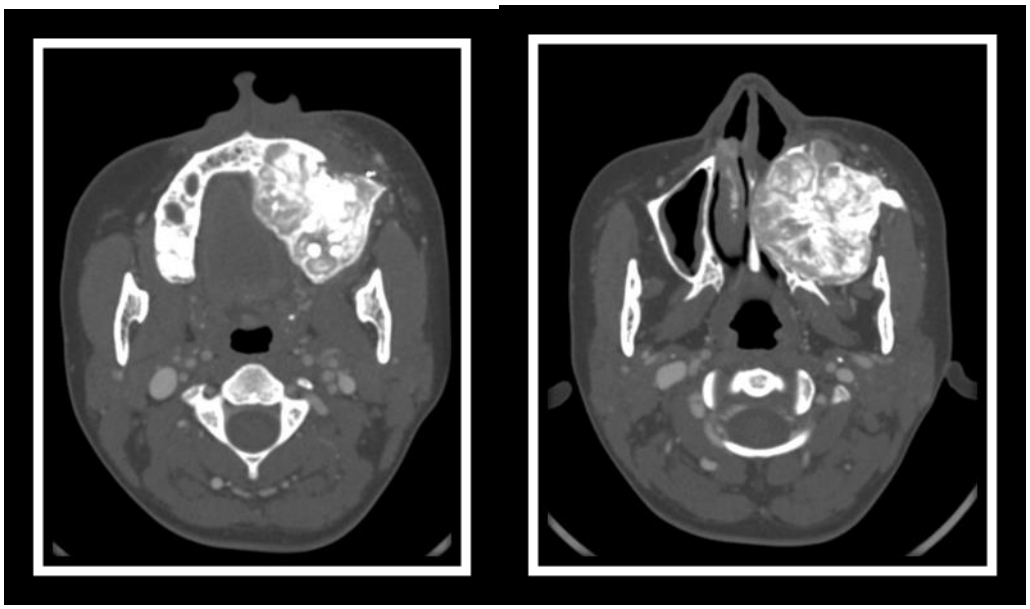

Fig. 4: CECT PNS Sagittal and Coronal section showing this lesion in relation to the molar with extension into the left maxillary sinus and nasal cavity.

Fig. 5: VR image showing a predominantly calcified mass lesion in relation to the left upper molar.

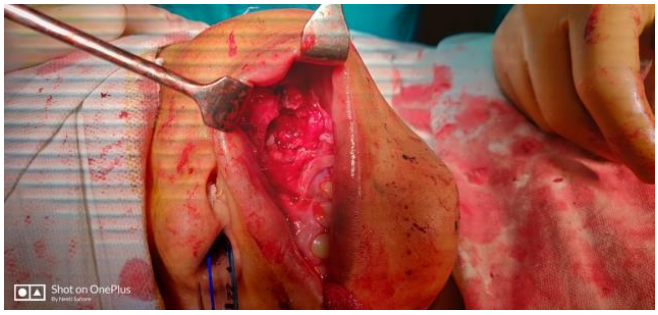

Fig. 6: The tumor was excised, however, complete excision of the tumor was not done due to difficult access.

Excisional biopsy of the lesion was done and the diagnosis of cemento ossifying fibroma was confirmed on histopathology.

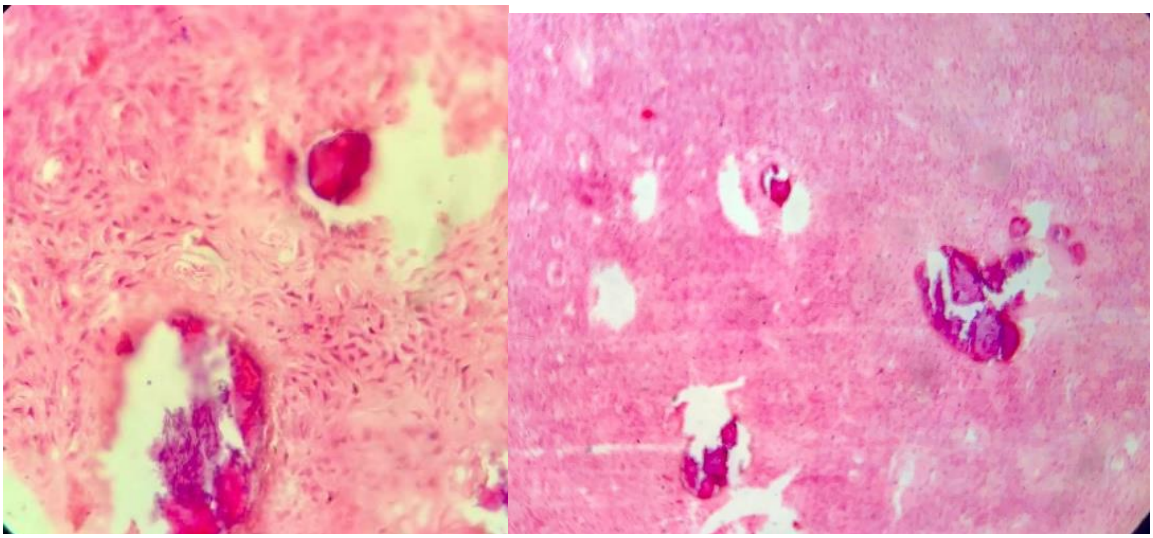

Fig. 7: Microscopic findings showed numerous trabecular and psammomatoid pattern of dystrophic calcification embedded in a cellular fibroblastic stroma comprising of uniform, short, plump, spindle cells arranged in a variety of patterns in a collagenous matrix. Histologic findings were suggestive of Cemento-ossifying fibroma involving maxilla.

DISCUSSION

Cemento ossifying fibromas arises from periodontal membrane.

Cemento-ossifying fibroma is defined by WHO as a demarcated or rarely encapsulated neoplasm consisting of fibrous tissue containing varying amounts of mineralized material (bone and/or cementum).
These lesions are best classified as osteogenic tumors.

The exact etiology of this lesion is not completely understood, with current theories regarding their origin include traumatic, developmental causes.

Clinical Presentation

Patient can present at any age group with the majority being diagnosed in middle aged adults i.e. third to fourth decade of life.

It is more commonly seen in females than in males.

Clinically it presents as painless slowly growing mass lesion which involves mandible more commonly than maxilla in the tooth bearing region.

In chronic cases, this lesion can grow and can result in facial asymmetry.

Imaging Findings

Radiographic evaluation is important for the characterization and extent of the lesion for better planning and operative results.

Cemento ossifying fibromas can be of three types: initial, mixed and mature stage.

In initial phase, this lesion is predominantly radiolucent with little calcifications within it which increases over time with mature stage being predominantly radio-opaque.

It shows centrifugal growth pattern so generally grows in all direction and is seen as well- defined round to oval mass lesion.

Treatment

It is generally seen as well-circumscribed mass lesion which permits enucleation of the tumor.

It is resistant to radiotherapy and complications of radiotherapy overweighs the benefits thus radiotherapy is contraindicated with wide surgical resection being the ideal choice of treatment.

Prognosis is known to be fair with less recurrence in case of involvement of mandible.

Cemento ossifying fibroma involving maxilla shows higher recurrence because of difficult access and lesion being larger at the time of presentation.

CONCLUSION

CT is pivotal in localizing and characterizing the lesions affecting the jaw, helps in narrowing down the radiological possibilities and to reach a probable diagnosis.

Communicating radiological possibilities help histopathologist to reach a definitive diagnosis and aid in the treatment planning of cement-ossifying fibroma.

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