



ORIGINAL RESEARCH PAPER

Surgery

A RARE CASE OF LIPOMA ARISING FROM PTERYGOPALATINE FOSSA (PPF): RADIOLOGICAL DIAGNOSTIC IMAGING WITH 3DCT CONE BEAM

KEY WORDS: Lipoma; Male; Middle Aged; Mouth Tumor; Pathology; Pterygopalatine Fossa Hrct 3d Cone Beam

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ABSTRACT

Lipomas of the oral cavity are infrequent, representing about 0.5% to 5.0% of all benign oral tumors. Some lipomas are reported in paranasal sinuses diseases. We report an extremely rare case of infiltrating lipoma arising from pterygopalatine fossa studied with 3D cone beam, HRCT and MR imaging.

INTRODUCTION: Lipomas are one of the most common soft-tissue mesenchymal tumors, accounting for approximately 16% of all these neoplasms. [9]. Infiltrating lipoma is an uncommon mesenchymal neoplasm that characteristically infiltrates adjacent tissues and tends to recur after excision. This type of lipoma is relatively rare in the head and neck region. The most common are described at the level of the nasal septum (17), and in the rare variant of the fibrolipoma (10).

CASE PRESENTATION: A 68-years old man presents a history of generic sinusitis. The family history does not detect any significant anomaly. On examination the patient presented a slight enophthalmos. The examination was performed with 3D technique cone beam low dose MPR reconstructions and panorex. The radial scans were reconstructed with a 2 mm range. Diffuse opacification of the left maxillary sinus presenting the hypodensities slightly uneven area in its upper lateral side (see panorex). The back wall of the left maxillary sinus in fact appears partially herniated anteriorly.

We recommend perform for to complete CT with and without i.e. iodine contrast media The examination was carried out with equipment multidetector CT by spiral acquisition and volumetric reconstructions coronal and sagittal. It was carried out before and after administration of i.v. iodine contrast media.

It is appreciable slightly tissue hypodense that look like the fat density at the level of the left maxillary pterygoid fossa; the lateral bone wall hernia posteriorly in the left maxillary sinus moving it anteriorly; the bone wall is markedly porotic. The back wall, though markedly thinned, do not show sure signs of discontinuity. The hypodense area right now described does not present significant enhancement, but they are significant in the context small point inhomogeneities (see coronal reconstructions after i.e. 61 to 70).

The left maxillary sinus opacified. The bone in the left orbital floor is very porous and it is partly scarcely noticeable (see sagittal

reconstructions and rear coronal reconstructions). T1,T2 weight T1 post GTPA e DWI are performed. MRI has confirmed the presence of the mass, its location and the presence of septa. The signal in the DWI did not highlight the areas of signal restriction.

DISCUSSION: Oral lipoma is diagnosed more frequently at a mean age of 50 to 62 years [8] Lipoma is a rare benign tumor that usually presents as an asymptomatic, slowly growing mass with a firm or soft consistency clinically.

The presence of septa highlights the need to make a differential diagnosis with a liposarcoma. The gadolinium enhancement in MRI it does not always allow us in distinguishing lipoma from well-differentiated liposarcoma or in the setting of multiple well-differentiated fatty tumors.

However, the differentiation between lipoma and low-grade liposarcoma clinically and radiographically can be difficult. Additionally, complete excision of all lesions in a patient with lipomatosis or multiple lipomas is not justifiable because of the low risk of malignancy, medical costs, potential complications, and discomfort of an operation for the region of interest. Diffusion-weighted imaging (DWI) is a noninvasive method for investigation of tumor histological content. It has been applied for some tumors and reported to be useful. This technique has revolutionized oncological imaging, by giving vital qualitative and quantitative information regarding tumor biology which helps in detection, characterization and even post treatment surveillance of the lesions . It has been applied at various sites with different clinical experience with its application in "personalized oncology" (2). In the lecterature ADC value of head and neck malignant tumors was significantly lower than the benign lesions ($1.071 \pm 0.293 \times 10^{-3} \text{ mm}^2/\text{s}$; 95%CI: 0.864-1.277, respectively and $1.505 \pm 0.487 \times 10^{-3} \text{ mm}^2/\text{s}$; 95%CI: 1.305-1.706), and recommended a threshold value of $1.3 \times 10^{-3} \text{ mm}^2/\text{s}$ for differentiation between benign and malignant tumors on 3 T we did not found restriction of signal. The lesion was not excised for patient decision and no modification after 3 years of follow-up has been shown.

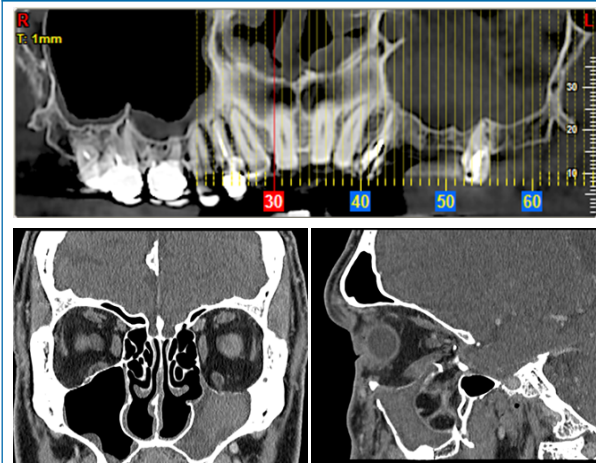


FIGURE 1. 3D CT cone beam: PN sinus Reconstructing Panorex Diffuse opacification of the left maxillary sinus presenting the hypodensities slightly uneven area in its upper lateral side . Reconstructing cross slight irregularities of pterygodeo hamulus

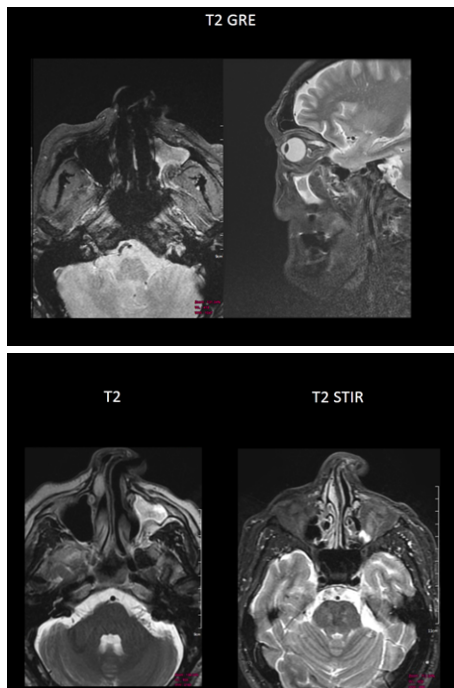


FIGURE 2 HRTC with Intravenous Contrast Medium No contrast axial scan enlargement of left pterygomaxillary fissure. iodine i.v. contrast axial scan no relevant enlargement of left pterygomaxillary fissure. Coronal hypodense area right now described does not present significant enhancement, but they are significant in the context small point inhomogeneities

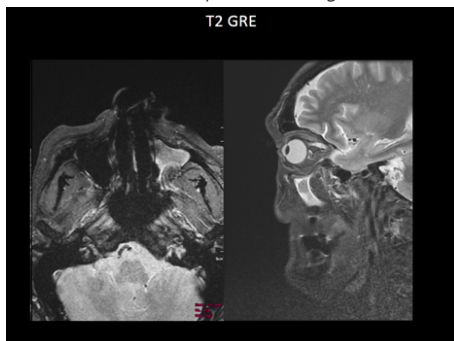


FIGURE 3 MRI images obtained with a 1.0-T superconductive imaging unit. Spin-echo T2-weighted and T2 STIR without fat suppression (2300/80), decreasing signal intensity is appreciable

and irregular linear regions of markedly hypointense signal are present.

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