

## Recurrence of a malignant fibro-histiocytoma in the masticator space with perineural spread

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**Section:** Head & neck imaging

**Imaging Technique:** MR

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Case Type: Clinical Cases

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**Patient:** 36 years, male

### Clinical History:

Clinical signs of deep relapse in a patient treated 4 years before for a malignant fibro-histiocytoma of the right maxillary sinus

### Imaging Findings:

This patient was operated on 4 years ago for a malignant fibro-histiocytoma of the right maxillary sinus (total right maxillar resection including the orbital floor and the hard palate and the pterygoid processes). An osseous reconstruction was performed in a second time. One year later, apparition of a local relapse involving the base of the skull treated by chemo- and radiotherapy. Status quo during 2 years. Now the patient consults for apparition of a trismus; the clinical examination shows a local re-evolution. MRI is done with the following sequences: T1w SE axial and coronal pre and post Gd DOTA.

### Discussion:

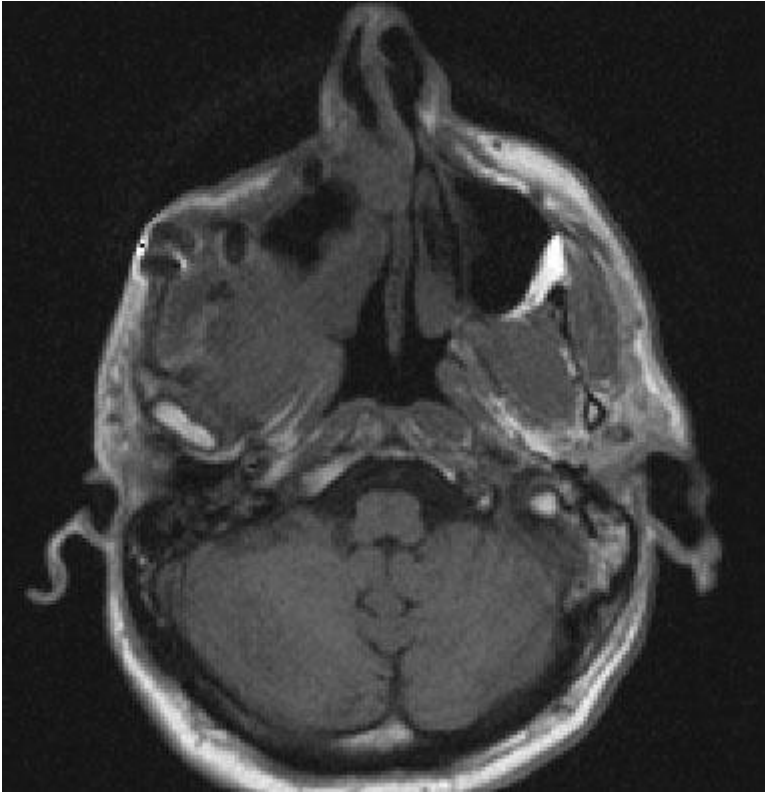
The relapse involves massively the pterygo-maxillary fossa including the lateral and medial pterygoidsmuscles causing the trismus. There is a perineural extension along the ways of the V2 (enlarging the foramen rotundum) and V3 (foramen ovale) up to the Meckel's cave. Unfortunately, in spite of multiple chemotherapies, the evolution was bad and the patient is now in end-stage of disease.

**Differential Diagnosis List:** Perineural extension of a relapsing malignant fibro-histiocytoma

**Final Diagnosis:** Perineural extension of a relapsing malignant fibro-histiocytoma

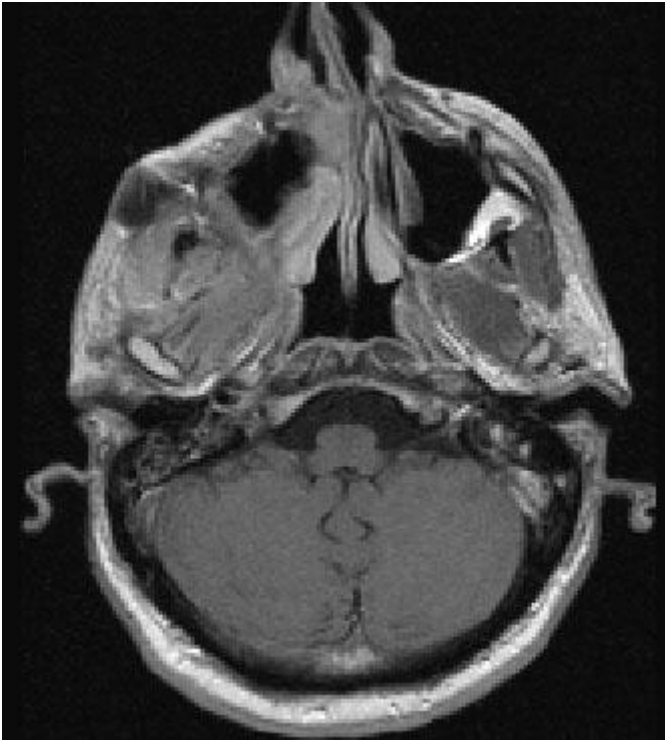
**Figure 1**

**a**



**Description:** Postoperative status with sequel of maxillectomy and metallic material inducing susceptibility artefacts. The masticator space is filled with an intermediate signal tissue. **Origin:**

**b**

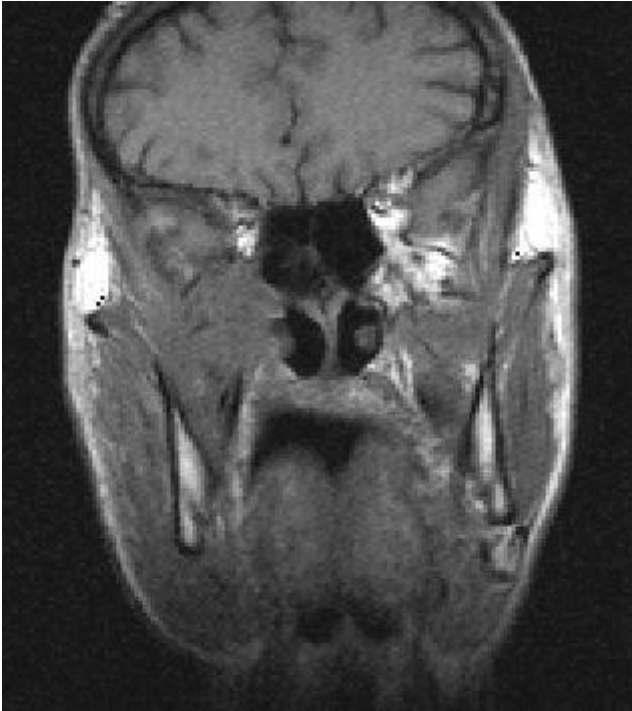


**Description:** There is a frank and homogeneous enhancement of the tumour in the masticator space.

**Origin:**

**Figure 2**

a



**Description:** There is a filling of the right masticator space by a tissue of intermediate signal intensity

**Origin:**

b



**Description:** Note the obstruction of the fat spaces around the foramen ovale on the right side

**Origin:**

**Figure 3**

**a**



**Description:** (Note: the grid-like artefacts are RF artefacts due to an external interference) There is a filling of the masticator space and the area of the right inferior orbital fissure by enhancing tumour tissue.

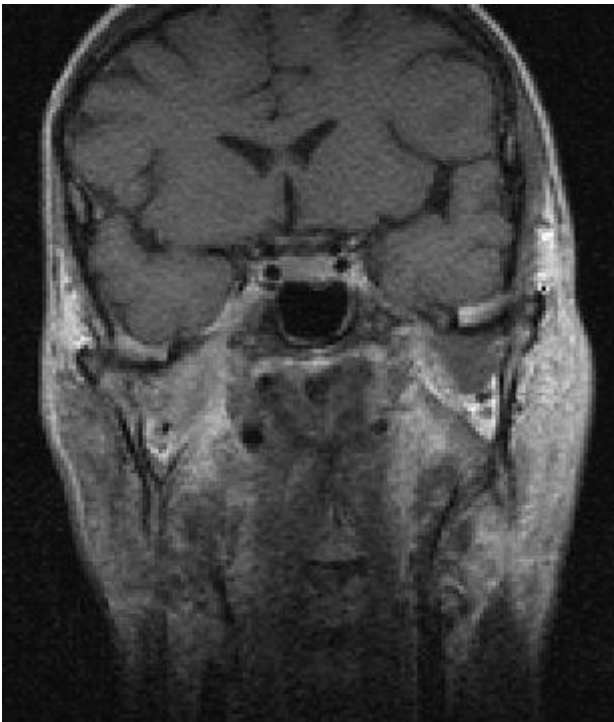
**Origin:**

**b**



**Description:** The cavernous sinus and Gasser ganglion are widened and enhance. The Meckel's cave is obstructed on the right. **Origin:**

**c**



**Description:** There is a widening of the foramen ovale and tumour all around the way of the inferior maxillary nerve. **Origin:**