Case 129

Eurorad

Oropharyngeal carcinoma

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Section: Head & neck imaging
Imaging Technique: MR
Case Type: Clinical Cases
Authors: R Sigal, G Schwaab
Patient: 48 years, male

Clinical History:

48 old patient with left otalgia.
Imaging Findings:

A 48 old patient with ancient exposure to alcohol and tobacco presented with left otalgia. Examination disclosed a tumor developed in the left glosso-tonsillar sulcus infiltrating both the tongue base and the tonsillar fossa. The histological dignosis was made by biopsy. MR imaging was requested to help selecting treatment planning. The patient was operated, with post surgical irradiation
Discussion:

95% of malignant lesions arising from the oral mucosa are squamous cell carcinoma. The epidemiology and etiology (tobacco and alcohol) is common with other upper aerodigestive tract tumors. Treatment options include surgery, external-beam radiation therapy, brachytherapy and induction chemotherapy. The strategy depends on the location of the tumor, T and N staging, and medical condition of the patient. Imaging plays an essential role in the mapping of the tumor, hence in the therapeutic strategy. CT and MR can be used to visualize the tumor and the lymph nodes. On T2W sequences, signal intensity is variable, ranging from hypo to hyperintensity depending on the proportion of cellular and necrotic areas. For the same reason, contrast enhancement may be more or less heterogeneous. MR is very sensitive to show invasion of the deep suprahyoid spaces, particularly, the fatty parapharyngeal space, carotid space and masticator space, such as in this case. Assessment of the mandible is essential. Imaging can also show the invasion of the base of the tongue, but when the tumor originates from the glossotonsillar sulcus, it may be difficult radiologically to identify the site of origin. A tumor arising from the glossotonsillar sulcus may mimic a lesion of the lateral border of the posterior third of the tongue, or an exophytic tumor of the tonsillar fossa.
Differential Diagnosis List: Oropharyngeal squamous cell carcinoma

Final Diagnosis: Oropharyngeal squamous cell carcinoma

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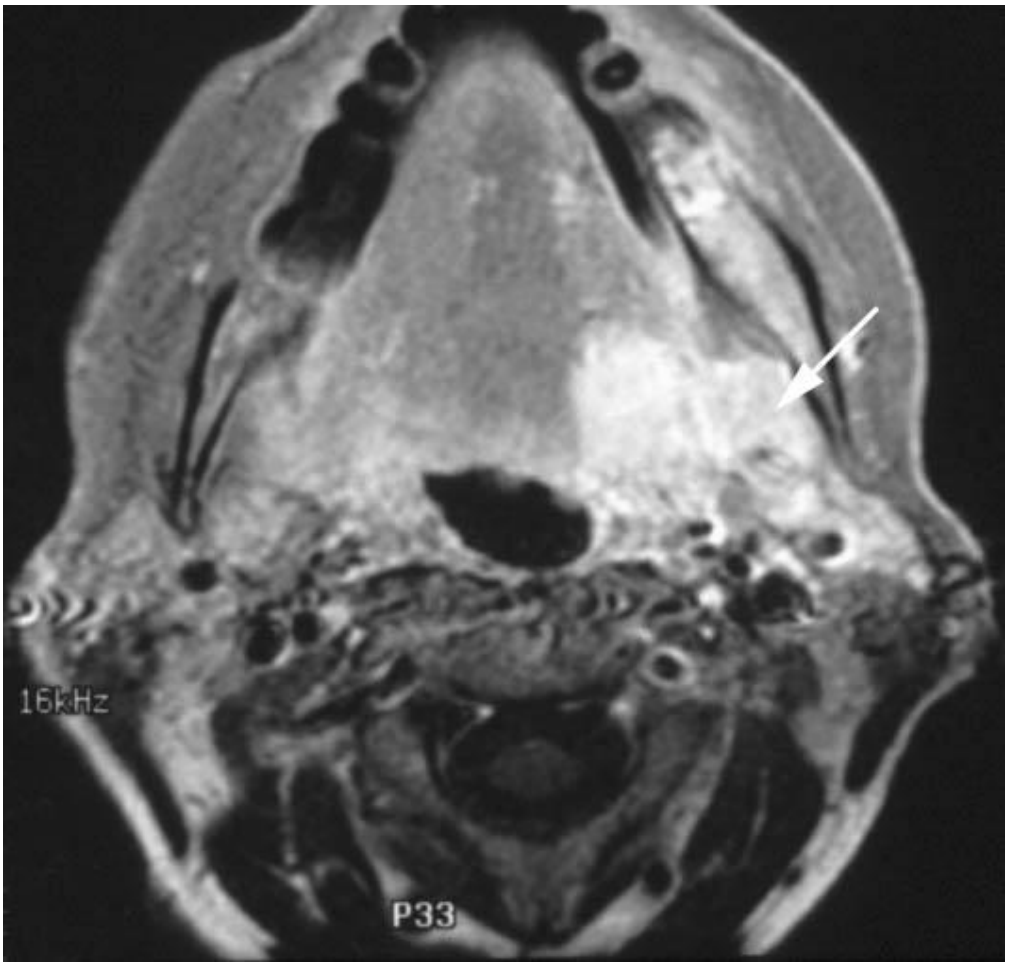
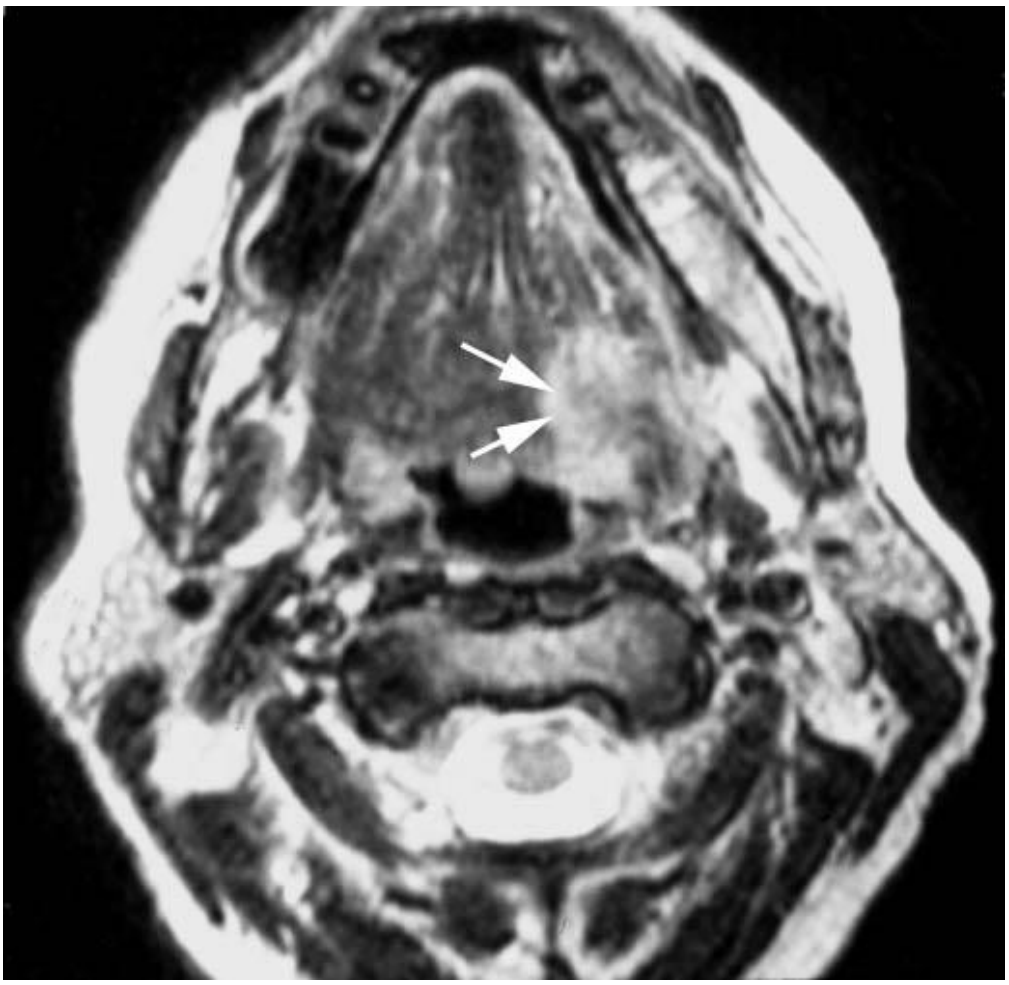
Figure 1

a



Description: Gd injection T1 weighted fat suppressed axial view shows that the lesion extends laterally in the medial pterygoid muscle (arrow). **Origin:**

b



Description: T2 weighted axial view shows a hyperintense lesion which invades the left base of the tongue, including the course of the neurovascular bundle of the tongue (arrows). **Origin:**