A case of tongue schwannoma

Published on 02.09.2006

DOI: 10.1594/EURORAD/CASE.5203
ISSN: 1563-4086
Section: Head & neck imaging
Case Type: Clinical Cases
Authors: Qasim Hussain, Robert Hermans
Patient: 32 years, male

Clinical History:

The patient consulted because of a mass lesion in the tongue base, without other complaints. He had a mass at the same localisation when he was 10 years old; it was locally resected at that time; the pathological result is unknown. Soon after the operation the mass started to regrow.

Imaging Findings:

A man with history of ankylosing spondylitis and B-thalassemia minor, currently controlled by medication. He consulted because of a mass lesion in the base of this tongue, without other related complaints. He had a mass at the same localisation when he was 10 years old; it was locally resected at that time; the pathological result is unknown. A few months after the operation the mass started to re-grow slowly. An MRI study showed a sharply margined, polylobular mass (dimensions 3 cm * 2.5 cm * 2 cm) in the tongue base at the left side. This lesion showed low signal intensity on T1-weighted images, and a heterogeneous high signal on T2-weighted images. After injection of contrast agent, the mass showed an overall intense enhancement, with centrally some non-enhancing areas. Afterwards, a biopsy was obtained; the pathological examination showed schwannoma.

Discussion:

Schwannomas, also referred to as neurilemomas or neurinomas, are benign encapsulated nerve sheath tumors composed of Schwann cells. They may arise from any peripheral, cranial or autonomic nerve. A schwannoma is a slow growing and usually solitary tumour. Extracranially, about 25% of all schwannomas are located in the head and neck region, but only 1% show an intra-oral origin. The intra-oral lesions show a predilection for the tongue. In decreasing order, the palate, buccal mucosa, lip and gingival tissues may also be affected. As schwannomas become larger they tend to outgrow their blood supply, and may undergo cystic degeneration in some areas. On CT, most schwannomas present as well-circumscribed soft-tissue masses, exhibiting contrast enhancement. Calcification or hemorrhage is uncommon, but cystic or fatty degeneration is frequent. On MRI, most schwannomas appear hypointense or isointense relative to muscle on T1-weighted images, hyperintense on T2-weighted images, and show strong enhancement after contrast administration. These MRI-characteristics are also visible in our case. Treatment is always surgical and usually requires only an excision or enucleation of the tumor, with no local or locoregional prophylactic measures. A schwannoma does not recur if the excision is complete. Isolated schwannoma hardly ever become malignant. As our patient has few complaints, he choose not to be operated and just followed up. In spite of schwannoma being a rare tumor in the tongue, if a mass in tongue with well defined margin and above mentioned MRI characteristic is noticed, schwannoma should be added in the differential diagnosis.

Differential Diagnosis List: Tongue schwannoma.
Final Diagnosis: Tongue schwannoma.

References:

Figure 1

**Description:** Axial T2-weighted image shows sharply marginated, hyperintense mass in the tongue base, at the left side. **Origin:**
Description: On this axial T1-weighted image, the tongue base mass has relatively low signal intensity.
Origin:
Figure 3

Description: After injection of gadolinium, the lesion shows strong enhancement, while some areas appear liquefied. Origin:
Figure 4

Description: Sagittal gadolinium-enhanced T1-weighted image, shows mass lesion in tongue base.

Origin:
Description: Coronal gadolinium-enhanced T1-weighted image confirms mass lesion in left side of tongue base. Origin: