Chondrolipoma of the tongue
A case report


Abstract. Chondrolipoma is a rare benign oral tumour. We present a case in a 68-year-old diabetic woman.

The lipoma is one of the commonest human soft-tissue tumors, usually occurring subcutaneously in the trunk and limbs. However, it is relatively rare in oral tissues.

Chondrolipomas are well known in breasts, but only a few cases have been reported in oral tissues. McAndrew & Greenspan reported a lipoma of the lip with cartilage formation in a 72-year-old man. Allard et al. presented two lipomas, one with osseous and the other with chondroid metaplasia. The latter case was in the left lower lip in a 69-year-old woman. Maes & Eulderink reported a chondrolipoma in the lateral border of the tongue of a 47-year-old man.

We present a case of chondrolipoma of the tongue.

Case report

The patient was a 68-year-old diabetic woman who was operated on because of a chromophobe adenoma of the hypophysis in 1972. She received constant medical care due to postoperative panhypopituitarism, and received a medication of thyroxin and hydrocortisone.

She presented with a hard swelling on the dorsal surface, in the midline of the tongue (3-4 cm from the apex). The tumor was sharply demarcated, 1 cm in diameter, within the muscles of the tongue. The surface of the tongue over the tumor was intact, and no ulceration was noted. There was no trauma in her anamnesis and she was not a smoker. A clinical diagnosis of fibroma was made and the tumor was excised.

On macroscopy, the surface of the 1.4x1.0 cm area of tissue excised from the tongue was intact. The specimen had a sharply demarcated, dense, white area with a diameter of approximately 1 cm.

On microscopy, the tumor was seen to be covered by normal surface mucosa with some foci of actinomyces on the surface. The tumor was composed of regular fatty tissue with a cellular chondroid component (Fig. 1). These two main components were separated by fibrous septa. No atypia, hyperchromasia, or mitoses were noted, and, on the basis of the microscopic findings, a diagnosis of benign chondrolipoma of the tongue was made. Cytokeratin staining with CAM 5.2 (Becton Dickinson, Immunocytometry Systems, San Jose, CA, USA) was negative. However, most of the chondrocytes gave strong positive staining with S-100 antibody (Dako A/S, DK-2600 Glostrup, Denmark) (Fig. 2).

The patient made an uneventful recovery.
and after 1.6-year follow-up, there was no sign of recurrence.

Discussion

Chondrolipoma is a rare benign tumor of unknown cause. This type of tumor is well known in the breast, where it is thought to be the result of metaplasia. Benign chondroid elements are also described within myofibroblastosomas and hamartomas. To our knowledge, chondrolipoma of the tongue is reported only occasionally. A possible diagnosis of pleomorphic adenoma of the lingual minor salivary glands was ruled out, because no epithelial elements were found in the sections studied and even immunostained sections for cytokeratin CAM 5.2 were negative.

Lipomas are occasionally altered by metaplastic elements that form an intrinsic part of the tumor, the commonest variant being fibrolipoma. In cases involving an increased vascular supply to the tumor, the term “angiolipoma” has been used. Normally, no cartilage is found in the tongue. It is possible that the present case started out as either a lipoma or a chondroma. The other main component of the tumor, either cartilage or fat, had developed by metaplastic stromal reaction. Thus, the present case also meets the criteria of a mesenchymoma.

The cause of chondrolipoma is unknown. Chronic irritation, trauma, and spontaneous development have been suggested. In the case presented, the pathogenesis was obscure, because there were no local irritating factors. The histologic sections were also without secondary changes due to impaired blood supply or trauma. These include infarction, hemorrhage, calcification, and cyst-like changes. The role of the patient’s panhypopituitarism (medically treated) and diabetes as pathogenic factors can only be speculated on.

References


