Angioleiomyoma of the upper lip: report of a case

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Abstract. A rare case of vascular leiomyoma of the upper lip in a 51-year-old man is presented. The differential diagnosis, frequency, treatment, and prognosis are discussed.

18% and others 14% (gingival floor of the mouth, etc.) There are currently only 84 reported cases of oral angioleiomyoma, of which 15 occurred on the upper lip.

Key words: angioleiomyoma. vascular leiomyoma. upper lip.

Case report

A 51-year-old man was referred to the oral and maxillofacial department of the University Hospital of Nijmegen. The patient presented with a small, red tongue of 3 × 1 cm, with rounded ends (HE × 50). In the left upper lip, a small, red, firm, nodule of 1.5 × 1 cm, with rounded ends (HE × 50), was present.

Fig. 1. Photograph of a 31-year-old patient with an elongated, hard, nodule of 1.5 × 1 cm on the left upper lip, causing aesthetic inconvenience and annoyance.

Fig. 2. Histological appearance of angioleiomyoma. Large, stromal tumor cells (c) with elongated nuclei (n) in a thickened vessel wall. Some lipocytes present (HE × 300).

Fig. 3. Histological appearance of angioleiomyoma. Large, stromal tumor cells (c) with elongated nuclei (n) in a thickened vessel wall. Some lipocytes present (HE × 300).
patient was advised of his condition and consented to excisional biopsy.

The lesion was completely removed with a small margin of clinically healthy tissue. The specimen felt solid and did not appear to be a nodule, cyst, or hemangioma; it was submitted for histopathologic examination. The postoperative course was uneventful, and there has been no evidence of recurrence 14 months postoperatively.

**Histopathology**

The tumor was embedded in paraffin and stained with HE. The microscopic examination revealed a largely encapsulated lesion composed of irregularly arranged smooth-muscle cells with some adipose tissue and abundance of arterial-type blood vessels of varying calibers. The tumor cells were large and had the elongated nuclei with rounded ends which are characteristic of smooth-muscle tumor cells (Fig. 2). The immunohistochemical analysis confirmed the presence of proliferation of smooth-muscle cells after positive staining for alpha-SM1. Special pericyte stainings as well as endothelial stainings (factor VIII-related antigen) were negative for the tumor cells. The final histopathologic diagnosis was angioleiomyoma.

**Discussion**

Vascular leiomyomas of the upper lip are rare. The exact origin of leiomyomas is still unknown, but most authors agree that the tumor arises from the smooth muscle of vessel walls, aberrant adnexial smooth muscle, arteriovenous anastomoses, and ectopic thyroglossal ducts, as well as hamartomas. However, leiomyomas and angioleiomyomas in particular are histologically similar and are composed of vascular spaces of different caliber.

The smooth-muscle cells are interconnected between and with the surrounding smooth-muscle cells from the adjacent vessels. It is likely, therefore, that the histologic origin of these benign tumors is related to the smooth muscle of the vascular wall.

Histologically, the lesion somewhat resembles hemangiopericytoma, but does not exhibit the distinguishing characteristics of pericytomas, which are composed of pericytes with contractile properties but lacking myofibrils.

Due to the abundance of small arterial blood vessels, a diagnosis of hemangiendothelioma could be considered. However, the presence of numerous smooth-muscle cells with rounded nuclei and the positive immunohistochemical stain for alpha-SM1 confirm the histopathologic diagnosis of angioleiomyoma. A test highly specific for vascular lesions, the factor VIII-related antigen immunohistochemistry, was negative.

There is consensus regarding the treatment of this lesion, i.e., surgical excision. The postoperative prognosis is generally good. The recurrence rate is very low, recurrence being thought to be due to inadequate excision of the initial lesion.

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**References**


