The following full text is a publisher's version.

For additional information about this publication click this link.
http://hdl.handle.net/2066/20789

Please be advised that this information was generated on 2020-04-21 and may be subject to change.
Angioleiomyoma of the upper lip: report of a case

G. E. Anastassov, PhD, and Damme, Maxillofacial Surgery, University of Copenhagen, Denmark

Abstract: A rare case of angioleiomyoma of the upper lip is presented. The differential diagnosis, frequency, treatment, and prognosis are discussed.

Keywords: angioleiomyoma; upper lip.

Accepted for publication 3 February 1995

Introduction

Leiomyomas are benign mesenchymal tumors derived from smooth muscle. They are subdivided into three groups: vascular (angiomyomas), which comprise approximately 75% of all leiomyomas; muscular (leiomyomas), which comprise 25%; and epithelial (leiomyomas), which are extremely rare (less than 1%). Angioleiomyomas are uncommon; slow-growing, asymptomatic, subcutaneous tumors. They are most commonly located in the anterior aspect of the lower extremities (approximately 70%), and affect predominantly middle-aged women. The face is rarely affected; 5% of all angioleiomyomas are located on the upper lip. The predilection sites for oral leiomyomas are as follows: lip (28%), palate (21%), cheek (18%), and gums (14%).

Case report

A 51-year-old man was referred to the maxillofacial department of the University Hospital of Copenhagen.

Fig. 1. Photograph of the left upper lip following removal of a small, painless, palpable, subcutaneous, nodule measuring 1.5 x 1.0 cm and located on the right upper lip. The lesion was of approximately 1 to 2 years' duration.

Fig. 2. Histopathologic appearance of the angioleiomyoma. Large, smooth-muscle tumor cells (c) are surrounded by myxoid stroma (n) and an elastic membrane (m). The specimen conformed to the criteria for angioleiomyoma, a variant of leiomyoma with a predominant vascular component.

Histopathology

The tumor was a circumscribed, nodular growth composed of interlacing, plump, spindle-shaped cells arranged in a fascicular pattern with a prominent vascular component. The stroma was hyalinized and myxoid. The tumor cells were positive for smooth muscle actin and caldesmon, and negative for desmin, keratin, and S-100 protein. The lesion was consistent with a diagnosis of angioleiomyoma.

Discussion

Angioleiomyomas are rare tumors of the upper lip. They are usually asymptomatic and painless, and are often discovered incidentally during routine examination. The diagnosis is usually made on the basis of clinical features and histopathologic findings. The management of angioleiomyomas is usually conservative, with surgical excision being the treatment of choice. Recurrence is rare, and the prognosis is excellent.
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 hemangiopericytoma 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 immunohistochemical reaction, 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.

Acknowledgments. We would like to thank Dr P. C. M. De Wilde, DMD, PhD, of the Department of Pathology, St Radboud University Hospital, Nijmegen, The Netherlands, for the histopathologic analysis, and Armindo Gama for linguistic advice.

References


