Leiomyomas are smooth muscle tumors categorized as either vascular or non-vascular lesions. Vascular leiomyomas, or angioleiomyomas (ALM), are rare, benign tumors arising in the deep dermis and subcutaneous tissue. They are derived from smooth muscle often in association with the media of vessel walls. This neoplasm most commonly occurs in women between the fifth and sixth decades, and may arise anywhere in the skin.

ALMs are typically well-circumscribed, slow-growing tumors less than 2 centimeters in size. The majority of these tumors arise on the extremities and characteristically exhibit pain exacerbated by cold temperature. Such pain is postulated to originate from either nerve involvement or contraction of the tumor’s smooth muscle and resulting ischemia. An estimated 10% of these tumors arise in the head and neck where they are generally painless and predominantly in males.

The mass progressively grew to 2 cm in diameter, resulting in nasal deformity, left-sided nasal obstruction, and unremitting pain, especially when exposed to cold. Her pre-operative Nasal Obstruction Symptom Evaluation (NOSE) questionnaire was 100/100 for the left side only. Examination showed a tender, mobile mass with overlying telangiectasias at the lateral nasal sidewall extending to the medial cheek (Fig. 1). Within the nasal cavity, the tumor had no mucosal component and was visualized abutting the septum.

Magnetic resonance imaging (MRI) with contrast was performed, revealing a well-circumscribed, contrast-enhancing, benign-appearing subcutaneous mass with no extension and hyperintensity on T2 and FLAIR sequences.

The mass was excised via an external rhinoplasty approach and appeared as a hypervascular, well-circumscribed, red mass limited to the subcutaneous tissues (Fig. 2).

Her left lower lateral cartilage was intact but her left upper lateral cartilage was thinned and depressed, abutting her septum and narrowing her internal nasal valve. Auricular cartilage harvest was performed and her left nasal sidewall was reconstructed with a batten graft.

At her six-month follow up appointment, the patient’s NOSE score had improved from 100/100 to 10/100 with good aesthetic results (Fig. 3).

References

Conclusion
- Angioleiomyomas are rare, benign tumors arising in the deep dermis and subcutaneous tissue. They are derived from smooth muscle often in association with the media of vessel walls.
- Nasal ALMs are quite unusual, comprising only 1% of all benign tumors of the nasal cavity and less than 1% of all ALMs.
- The histologic pattern of ALMs is of spindle shaped cells consisting of a mixture of well-differentiated smooth muscle and thick-walled vessels.
- The tumor is benign and recurrence rates are extremely low, ranging from 0%-4.
- Approach considerations were based on complete access to tumor, ability to perform framework reconstruction for functional defects, and only minimally visible scarring. The external rhinoplasty approach fulfills all these criteria and provides excellent aesthetic outcomes.

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