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Nodules on the Nasal Tip: Think Before You Laser

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INTRODUCTION

Cosmetic consultations are routinely part of a dermatologist's day. Often, patients present after consultation from another dermatologist or other physician with an established diagnosis and would like a particular treatment to resolve their condition. However, it is imperative to take a full history and physical exam prior to rendering treatment in the event of a missed or new diagnosis.

A 54-year-old male with a history of squamous cell carcinoma presents with a 1-year history of nodules on the nasal tip. The patient had been seen by an outside dermatologist for a nodule in the same location 14 months prior to presentation with biopsy showing angioma. The lesion was treated with electrodessication but it did not completely resolve. The patient was referred to our office for consultation for possible laser treatment for the nodules. Patient states that the lesion has increased in size with an adjacent nodule now present as well. Both lesions were asymptomatic. Physical exam revealed two reddish skin colored subcutaneous nodules on the dorsal and ventral nasal tip respectively. No lymphadenopathy was appreciated. Skin biopsy of lesion on the dorsal nasal tip was obtained (Figure 1).

The biopsy specimen demonstrated aggregations of pale epithelioid cells with vesicular nuclei, and numerous pleomorphic cells and mitoses. A dense lymphocytic inflammatory cell infiltrate was also present in the superficial dermis. CD31 and FLI-1 stained strongly and diffusely with CD34 showing focal patchy positive staining. Factor VIII staining was negative (Figure 2 and 3).

Angiosarcomas are rare vascular endothelium derived malignant neoplasms occurring primarily in adults on the head and neck.[1,2,3] Most occur spontaneously however radiation exposure, chronic lymphedema, toxins such as arsenic and vinyl chloride, and certain genetic syndromes are significant risk factors for their development. Notably, sun exposure is not considered a risk factor.[1,2] They are often subdivided broadly into cutaneous angiosarcomas and visceral angiosarcomas with many other subclassifications also noted. Clinically, cutaneous lesions often appear initially as a spreading blue red bruise or violaceous-red papule.[1-3] Initially, they can appear very benign in nature, but with progression, facial edema, ulceration, and hemorrhage can be seen.[1,2]

On histopathology, angiosarcomas are most commonly characterized by irregular vascular or lymphatic spaces lined by atypical endothelial cells with large, hyperchromatic nuclei. The tumors exhibit an invasive growth pattern.[4,5,6] Numerous other patterns have been described, including sinusoidal, spindled, foamy cell, and epithelioid variants. Epitheloid angiosarcomas are rarely found in the skin and often have atypical endothelial cells with areas devoid of vascular spaces more reminiscent of a carcinoma or melanoma.[4] To differentiate them, the presence of erythrocytes among the sheets of endothelial cells may be a helpful hint.[7] Immunohistochemical confirmation of endothelial cell lineage with vascular markers such as CD34, CD31, FLI1, and ERG is therefore important. In particular, ERG expression tends to remain positive even when other vascular markers are lost.[4,5,6]

No staging system exists for angiosarcomas.[2,3] Prognosis for these patients is poor. In one analysis of 434 cases over a 34-year period, survival rates for angiosarcomas of the head and neck were 34% at 5 years and 14% at 10 years.[8] Treatment options include surgical excision with adjuvant radio- and/or chemo-therapy.[7] No randomized clinical trials exist assessing various treatment regimens.[6]

FIGURE 1. Clinical photograph.

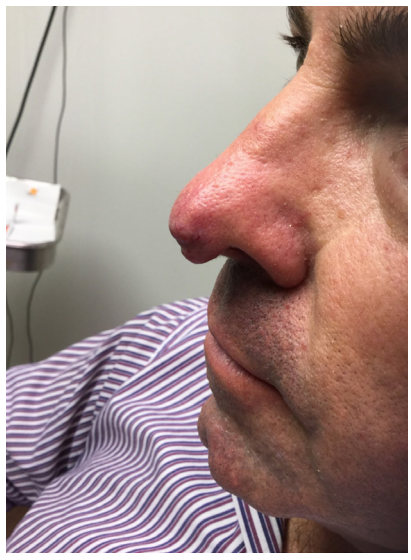


FIGURE 2. H&E 40x magnification.

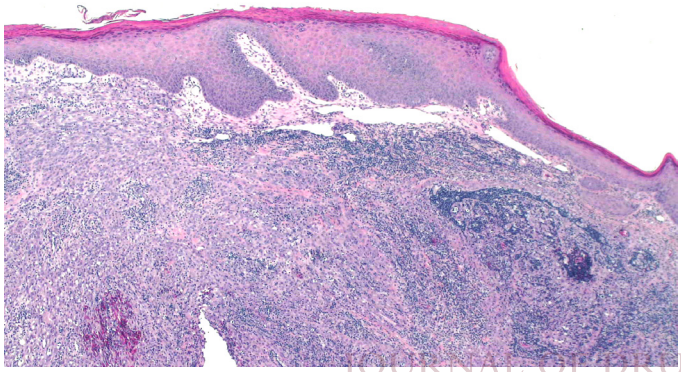
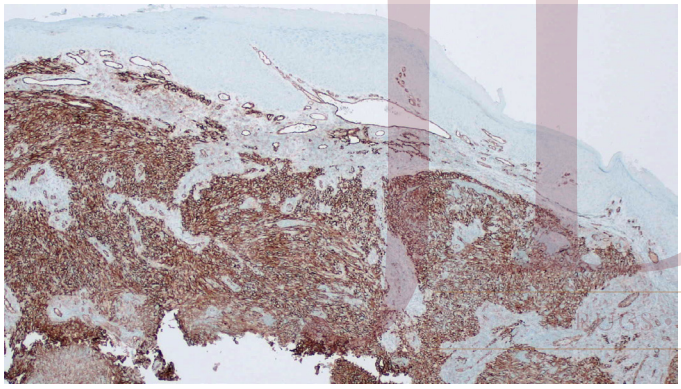


FIGURE 3. CD 31 stain 40x magnification.



Our patient underwent partial rhinectomy with adjuvant radiotherapy and continues to follow up with oncology. This case highlights the importance of biopsy and repeat biopsy if necessary prior to cosmetic procedures to confirm the correct diagnosis.

DISCLOSURES

No conflicts of interest to report.

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