

A solitary auricular polyp

Michael J. McFall, John R. Griffin¹, Dirk M. Elston¹

Department of Pathology and Laboratory Medicine, Cedars-Sinai Medical Center, Los Angeles, CA, ¹Ackerman Academy of Dermatopathology, New York, USA

A 73-year-old man presented to his dermatologist with a 1 cm, polypoid, left auricular lesion of 1-year duration. His past medical history was significant for prostatic adenocarcinoma.

A biopsy was obtained, and immunohistochemical staining for Melan-A was performed [Figures 1 and 2].

The most likely diagnosis is:

- Congenital pattern nevus with pseudovascular spaces
- Epithelioid angiosarcoma
- Glomangioma
- Metastatic melanoma associated with an angiokeratoma
- Lobular capillary hemangioma (pyogenic granuloma).

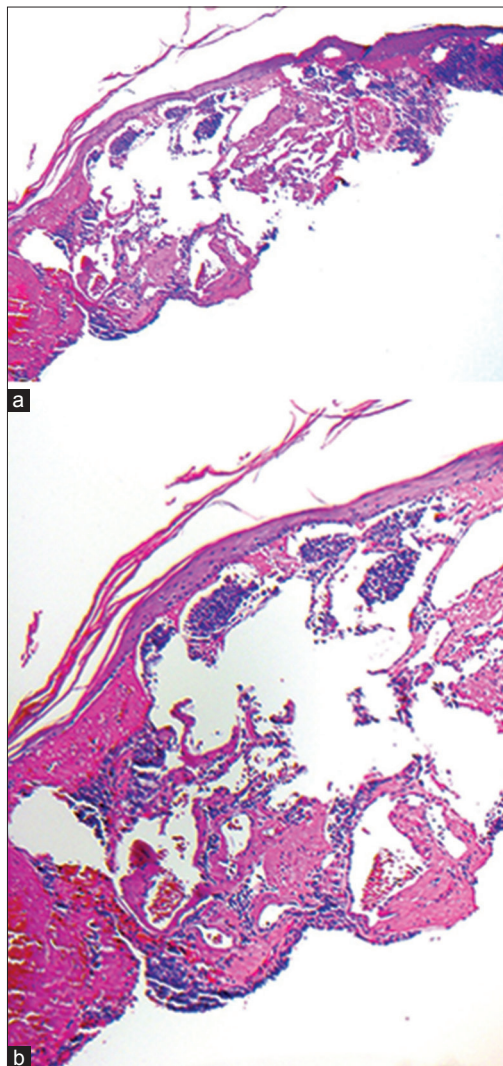


Figure 1: (a) Dilated vascular spaces associated with atypical epithelioid cells (H and E, ×20), (b) Nested atypical epithelioid cells within vascular lumen (H and E, ×100)

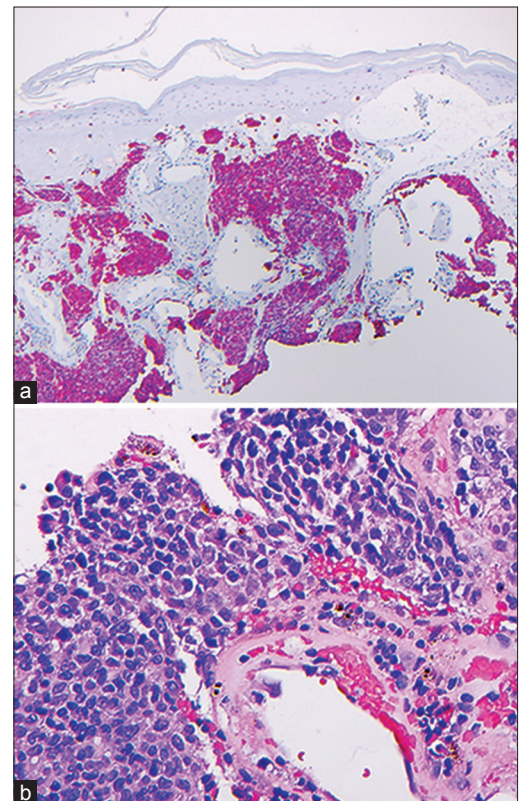


Figure 2: (a) Epithelioid cells with moderate cytoplasm, visible nucleoli, and focal mitosis (H and E, ×600), (b) Diffuse cytoplasmic staining of the population of interest with Melan-A (red chromogen) (×100)

Access this article online

Website: www.idoj.in

DOI: 10.4103/2229-5178.160276

Quick Response Code:



Address for correspondence:

Dr. Michael J. McFall,
142 North Clark Drive,
Apartment 3,
West Hollywood,
CA 90048, USA.
E-mail: mjmcfall@dmu.edu

ANSWER

Metastatic melanoma associated with an angiokeratoma

DISCUSSION

The histological sections demonstrated dilated and focally thrombosed vascular spaces within the superficial dermis. The overlying epidermis showed focal atrophy, but was otherwise unremarkable. Adjacent to and within the vascular lumens, atypical epithelioid cells arranged in nests and sheets were noted, without definitive maturation or dispersion [Figure 1a and b]. Furthermore, conspicuous nucleoli and rare mitoses were appreciated in the epithelioid cell proliferation [Figure 2a]. Immunohistochemical stains for S-100 and Melan-A [Figure 2b] highlighted the tumor.

Albeit rare, published case reports and small series have described the co-occurrence of cutaneous melanoma and other neoplasms (epithelial, mesenchymal, and hematopoietic). Concomitant melanoma and malignant (basal cell carcinoma [BCC], squamous cell carcinoma, chronic lymphocytic leukemia, leiomyosarcoma, Paget's disease, atypical fibroxanthoma, and Merkel cell carcinoma)^[1-7] as well as benign tumors (seborrheic keratosis)^[8] have been documented with BCC reported most often. To further clarify the confusing terminology used to describe these unique lesions, several authors have proposed a standardized nomenclature with four general subcategories including: combination, collision, biphenotypic, and colonization tumors.^[9-12] However, due in large part to the relative paucity of cases, the biology and therefore clinical relevance of these lesions is not well-understood.

In the current case, given the clinical history of a solitary lesion, the possibility of a primary melanoma was considered. However, the absence of an *in-situ* lesion, focal sheet-like growth with poor maturation in a predominantly intravascular location, and relatively monomorphic atypical cytology of the nevoid/epithelioid population suggest a metastasis. As the distinction between primary cutaneous and metastatic melanoma has significant prognostic and therapeutic implications, criteria incorporating both architectural and cytologic features have been proposed in an attempt to elucidate this quandary.^[13] The presence of an intraepidermal (*in-situ*) and/or benign nevic component, relative absence of lymphovascular invasion, polymorphous cytology,

and fewer mitoses favor a primary lesion. In contrast, a dermal and/or subcutaneous infiltrate, extensive lymphovascular invasion, monomorphous population, and numerous mitoses favor a metastasis. Ultimately, however, the correlation of clinical and radiologic findings, as was suggested in our case, is critical in arriving at an accurate diagnosis.

REFERENCES

1. Belisle A, Gautier MS, Ghazali F, Plantier F, Wechsler J. A collision tumor involving Basal cell carcinoma and lentigo maligna melanoma. *Am J Dermatopathol* 2005;27:319-21.
2. Ahlgrimm-Siess V, Hofmann-Wellenhof R, Zalaudek I, Cerroni L, Kerl H. Collision of malignant melanoma (lentigo maligna type) with squamous cell carcinoma in solar-damaged skin of the face. *Dermatol Surg* 2007;33:122-4.
3. Cahill RA, McGreal G, Neary P, Redmond HP. Synchronous high-risk melanoma and lymphoid neoplasia. *Melanoma Res* 2001;11:517-22.
4. Ul-Mulk J, Rasmussen H, Breiting L, Siim E. A case of collision tumor or transdifferentiation between malignant melanoma and leiomyosarcoma. *Indian J Pathol Microbiol* 2012;55:538-9.
5. Hill SJ, Berkowitz R, Granter SR, Hirsch MS. Pagetoid lesions of the vulva: A collision between malignant melanoma and extramammary Paget disease. *Int J Gynecol Pathol* 2008;27:292-6.
6. Wilsher MJ. Collision tumour: A typical fibroxanthoma and invasive melanoma. *Pathology* 2009;41:699-701.
7. Forman SB, Vidmar DA, Ferringer TC. Collision tumor composed of Merkel cell carcinoma and lentigo maligna melanoma. *J Cutan Pathol* 2008;35:203-6.
8. Defazio J, Zalaudek I, Busam KJ, Cota C, Marghoob A. Association between melanocytic neoplasms and seborrheic keratosis: More than a coincidental collision? *Dermatol Pract Concept* 2012;2:202a09.
9. Rodriguez J, Nonaka D, Kuhn E, Reichel M, Rosai J. Combined high-grade basal cell carcinoma and malignant melanoma of the skin ("malignant basomelanocytic tumor"): Report of two cases and review of the literature. *Am J Dermatopathol* 2005;27:314-8.
10. King R, Lyons J, Meyers AL, Googe PB, Page RN, Gupta VK. Primary invasive melanoma and basal cell carcinoma (collision tumor) with blue nevus-like cutaneous metastases. *J Cutan Pathol* 2007;34:629-33.
11. Pool SE, Manieci F, Clark WH Jr, Harrist TJ. Dermal squamo-melanocytic tumor: A unique biphenotypic neoplasm of uncertain biological potential. *Hum Pathol* 1999;30:525-9.
12. Satter EK, Metcalf J, Lountzis N, Elston DM. Tumors composed of malignant epithelial and melanocytic populations: A case series and review of the literature. *J Cutan Pathol* 2009;36:211-9.
13. Barnhill RL, Piepkorn M, Busam KJ. *Pathology of Melanocytic Nevi and Malignant Melanoma*. 2nd ed. New York: Springer; 2004.

Cite this article as: McFall MJ, Griffin JR, Elston DM. A solitary auricular polyp. *Indian Dermatol Online J* 2015;6:284-5.

Source of Support: Nil, **Conflict of Interest:** Nil.