

Polypoid Melanoma: An Aggressive Variant of Nodular Melanoma

Jaime Pérez-Wilson, MD; Javier Arellano, MD; Alex Castro, MD

PRACTICE POINTS

- The differential diagnosis of polypoid melanoma includes pyogenic granuloma and squamous cell carcinoma.
- Polypoid melanoma has a poor prognosis because of its thickness and ulceration at the time of diagnosis and the risk of vascular embolization.

To the Editor:

An 81-year-old man presented with a nodular polypoid lesion that developed on a flat lesion on the back of 2 years' duration. The lesion grew progressively over the course of 3 months prior to presentation. The patient had a history of melanoma in situ on the forehead that was treated with conventional surgery with clear surgical margins 6 years prior to the current presentation.

On physical examination the patient had a 4×2-cm ulcerated polypoid lesion on the back. The lesion was pink with a pigmented base. Additionally, 2 pink papules with superficial telangiectases were observed around the main lesion (Figure 1).

The gross section showed an exophytic tumor largely growing above the skin surface (Figure 2). Histopathologic analysis revealed an ulcerated lesion consisting of confluent nest and sheets of epithelioid and spindle atypical cells with numerous mitotic figures and necrotic foci (Figure 3). The thickness of the lesion was 2200 μm, and the mitotic count was 28 mitoses/mm². There also was peritumoral vascular invasion and satellite metastasis within the perilesional hypodermis measuring 0.4 mm. Immunohistochemistry staining for S-100, human melanoma black 45 (HMB-45)(Figure 4), and Melan-A was positive in neoplastic cells.

The dissemination study revealed multiple mediastinal and axillary lymphadenopathies and lesions with



FIGURE 1. Polypoid melanoma with a 4×2-cm ulcerated nodular lesion with crusts on the surface and 2 satellite pink lesions around the main lesion.

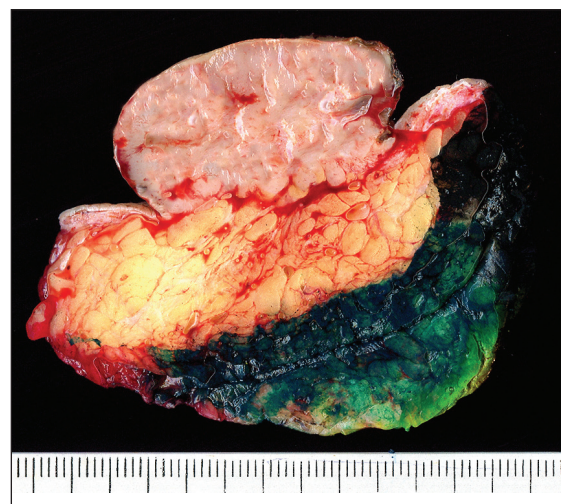


FIGURE 2. A longitudinal section of the polypoid tumor.

Drs. Pérez-Wilson and Castro are from Clínica Alemana de Santiago, Chile. Dr. Pérez-Wilson is from the Dermatology Department and Dr. Castro is from the Pathology Department. Dr. Arellano is from the Department of Dermatology, Universidad de Chile, Santiago. The authors report no conflict of interest.

Correspondence: Jaime Pérez-Wilson, MD, Vitacura 5951, Santiago, Chile (jjperez@yaho.es).

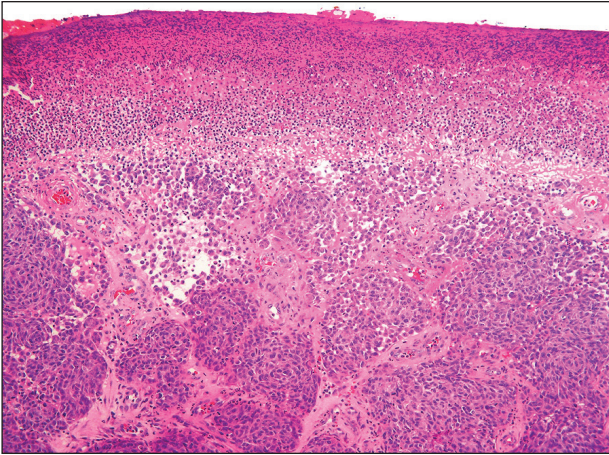


FIGURE 3. Histopathology showed neoplastic proliferation with atypical epithelioid and spindle-shaped melanocytes arranged in nests with superficial ulcer (H&E, original magnification $\times 100$).

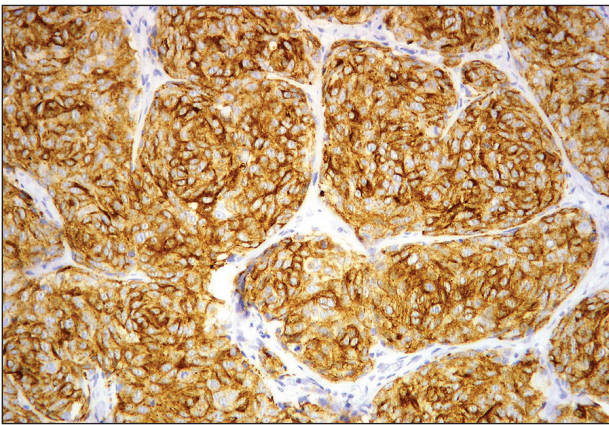


FIGURE 4. Tumor cells were diffusely positive with human melanoma black 45 (HMB-45) immunostain (original magnification $\times 200$).

metastatic appearance in the brain, liver, pancreas, and muscle, together with peritoneal carcinomatosis. The patient was lost to follow-up and did not follow coadjuvant therapy with interferon alfa.

Polypoid melanoma initially was described as a type of melanoma characterized by an exophytic growth in which most of the tumor is located on the cutaneous surface,

together with ulceration.¹ It usually occurs in patients aged 20 to 39 years,² and the reported incidence ranges from 1.9% to 43.3%.¹ It more commonly affects mucosae, including the upper respiratory tract, esophagus, and vagina. Polypoid melanoma has a rapid progression and a poor prognosis.³ Polypoid melanoma involving the skin primarily affects the back and has a 5-year survival rate of 32% to 42%.⁴ Poor prognosis has been attributed to the high risk for vascular embolization under the lesion.⁵ Histologically, there is marked cell atypia with nuclear and cellular pleomorphism and a high mitotic count. The tumor rarely involves the reticular dermis.^{1,2}

Polypoid melanomas are rare; however, reported frequency rates cover a wide range. These frequency rates may be due to the definition of polypoid melanoma used by the pathologist issuing the report. One of the most accepted definitions at present is a pigmented macule that progresses in months with a rapid vertical growth, invading the epidermis and the papillary dermis.² The differential diagnosis includes pyogenic granuloma, squamous cell carcinoma, basal cell carcinoma, soft tissue sarcomas, and hemangioma.

Although our patient had a history of melanoma and the polypoid lesion developed from a flat lesion, he was late to seek medical care. The diagnosis of melanoma is made on increasingly smaller lesions with better prognosis, but there still are reports of larger melanomas. This case highlights the role dermatologists serve in the education of patients on their diagnoses and risk factors so that we may be able to diagnose non-life-threatening small lesions. It is important to remember this morphologic variety of melanoma and highlight its rapid progression and poor prognosis.

REFERENCES

1. Knezević F, Duancić V, Sitić S, et al. Histological types of polypoid cutaneous melanoma II. *Coll Antropol.* 2007;31:1049-1053.
2. Dini M, Quercioli F, Caldarella V, et al. Head and neck polypoid melanoma. *J Craniofac Surg.* 2012;23:E23-E25.
3. Plotnick H, Rachmaninoff N, VandenBerg HJ Jr. Polypoid melanoma: a virulent variant of nodular melanoma. report of three cases and literature review. *J Am Acad Dermatol.* 1990;23(5, pt 1):880-884.
4. Mancini EA, Balch CM, Murad TM, et al. Polypoid melanoma, a virulent variant of the nodular growth pattern. *Am J Clin Pathol.* 1981;75:810-815.
5. De Giorgi V, Massi D, Gerlini G, et al. Immediate local and regional recurrence after the excision of a polypoid melanoma: tumor dormancy or tumor activation? *Dermatol Surg.* 2003;29:664-667.