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## Head and Neck Polypoid Melanoma

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**Abstract:** Polypoid melanoma represents a rare clinical variant of nodular melanoma skin cancer in which the tumor is connected to the skin by a pedicle, characterized by exophytic growth, ulceration, and young age at onset (20–39 years) with a special predilection for the back and with a survival rate at 5 years ranging from 32% to 42% as compared with 57% 5-year survival for nodular subtype and 77% for the superficial subtype. We present a case of a deeply pigmented polypoid melanoma arising on the face of a 77-year-old man. We performed a literature review to clarify its surgical management and prognosis.

**Key Words:** Melanoma, polypoid melanoma, pedunculated melanoma, sentinel node biopsy, review

Polypoid melanoma, first classified in 1958 by Vogler and co-workers, is a type of melanoma characterized by exophytic thickness, usual ulceration, and young age at onset (20–39 years) with a special predilection for the back and with a survival rate at 5 years ranging from 32% to 42% as compared with 57% 5-year survival for nodular subtype and 77% for the superficial subtype.<sup>1–4</sup> As previously asserted, it should be specified that the term “pedunculated” is different from “polypoid”; according to McGovern et al,<sup>2</sup> polypoid melanoma is classified as pedunculated when the lesion is entirely above the skin surface and connected to the skin by a stalk.<sup>5–7</sup> The main concern regards the differentiation from the sessile polypoid melanoma that lies at least half above the skin surface.<sup>7</sup> It is common on mucosae including the upper respiratory tract, esophagus, vagina, and rectum and behaves as a level IV or V tumor with a very rapid progression and poor prognosis.<sup>1–3</sup> It has been postulated that the poor prognosis would be related to the high risk of vascular embolism under the lesion.<sup>7</sup> The incidence reported in the medical literature varies from 2% to 43%.<sup>2</sup> Clinically, it shows a rapid growth, taking only few weeks to become huge. Morphologically, it shows marked cytologic atypia, cellular and nuclear pleomorphism, organization in large sheets of cells, and high mitotic rate.<sup>7,8</sup>

### CLINICAL REPORT

We report a case of a polypoid melanoma arising on the face of a 77-year-old man with characteristic features and clinical course. The lesion developed in few weeks and was characterized by rapid

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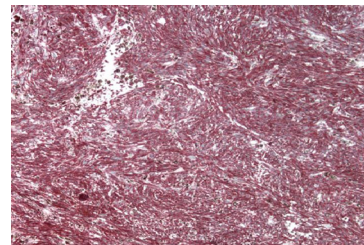
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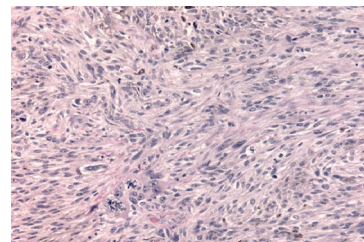
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**FIGURE 1.** A 2.5 × 2-cm pigmented polypoid melanoma arising on the left nasolabial groove of a 77-year-old man.



**FIGURE 2.** The photomicrograph shows a spindle-cell and pleomorphic tumor, with atypical mitoses and occasional pigmented elements (hematoxylin-eosin stain).



**FIGURE 3.** Immunohistochemistry shows diffuse positivity for HMB45.

**TABLE 1.** Head and Neck Melanoma: Review of 30 Cases

No.	Author(s), Year	Sex, Age (y), Race	Location	Dimensions (cm)	Soft Tissue Invasion
1	Manci et al, <sup>4</sup> 1981	NA, NA, W	Head and neck	NA	NA
2	Plotnick et al, <sup>1</sup> 1990	F, 45, W	Neck	1-cm diameter	—
3	De Giorgi et al, <sup>7</sup> 2003	F, 87, W	Head (preauricular)	1-cm diameter	Satellitosis within 7 cm from the scar
4	Knezević et al, <sup>10</sup> 2007	NA, NA, W	Head and neck	NA	NA
5	Plzakova et al, <sup>9</sup> 2010	M, 54, W	Neck	21 × 15 × 12	Trapezius/scalene
6	Current study	M, 77, W	Head	2.5 × 2	None

growth and ulceration of the surface. Clinically, it presented as a pedunculated mass of the nasal-labial groove region measuring 2.5 × 2 cm (Fig. 1). The patient underwent local wide excision with 1-cm safe gross margins and reconstruction with a local perforator-based (angular artery) flap. Intraoperative and postoperative courses were uneventful. On histopathology, the measured thickness was 2 mm, and the lesion was classified as Clark IV. The hematoxylin-eosin examination shows a spindle-cell and pleomorphic tumor, with atypical mitoses and occasional pigmented elements (Fig. 2), and immunohistochemistry shows diffuse positivity for HMB45 (Fig. 3).

Ulceration was present along with a high mitotic rate (35/mm<sup>2</sup>); tumor-infiltrating lymphocytes, perilesional lymphohistiocytic invasion, vascular invasion, regression, and microsatellites were absent. Sentinel node biopsy and total body computer tomography scan were negative. Immunohistochemistry showed positivity to HMB45 and protein S-100. The tumor was classified as pT4B N0 M0 according to the 2009 American Joint Committee on Cancer (Seventh Edition). Patient has been free from the disease since 2 years.

The interest of our case lies in a deeply pigmented lesion arising out the main age of incidence.

**SEARCH STRATEGY AND SELECTION CRITERIA**

Data were identified by a systematic search on MEDLINE, Ovid, the Cochrane database, Current Contents, PubMed, Google, and Google Scholar, cross-referencing from identified articles and conference abstracts in English language. Various articles were identified through searches of the extensive files of the authors. Search terms for the online research were as follows: *pedunculated melanoma*, *polypoid melanoma*, and *sessile melanoma*. Abstracts and reports from meetings were included only when they related directly to previously or subsequently published work. Findings of any single reported case were evaluated, and the reference lists were accurately checked to identify additional relevant articles.

**RESULTS**

With these criteria for our review, a total of 29 cases published in peer-reviewed journals between 1981 and 2010 were identified.<sup>1,4,7,9,10</sup> All cases are shown in Table 1, with the indication of sex, age, race, tumor dimensions, soft tissue invasion, sentinel

**TABLE 2.** Differential Diagnosis Between Polypoid Melanoma and Polypoid Spitz Nevus

Feature	Polypoid Melanoma	Polypoid Spitz Nevus
Mitoses	Present	Absent
Pleomorphism	Present	Absent
Mesenchymal component between cell growth	Absent	Present
Vascular proliferation	No significant	Regularly distributed

lymph node, lymphatic and visceral metastasis, primary/adjuvant treatment, and follow-up. Despite the effort to collect as much information as possible, it appears that few clinical and surgical tips are available because of high-specialist journals pertinent to the pathologic and microscopic features. All patients with polypoid melanoma were white with a mean age of 66 years (range, 45–87 years; n = 4). In the majority of cases, tumor dimensions are contained within 1 cm in diameter with the exception of a giant polypoid melanoma of the neck resulting as the biggest ever described in the literature, which was managed with adjuvant chemotherapy.<sup>9</sup> Surgery represents the treatment of choice with surgical margins around 1 cm<sup>1,7</sup> and adjuvant therapy is reserved for nonoperable patients.<sup>9</sup> The minimum follow-up described is 48 months,<sup>9</sup> and the maximum is 6 years.<sup>2</sup> No patients died of disease as compared with polypoid melanoma arising on the trunk. As a consequence, it appears that head and neck polypoid melanoma has a better prognosis compared with those arising in other regions.

**DISCUSSION**

Since the first description of polypoid melanoma in 1958, a total of 115 cases have been reported in the medical literature, and only a small amount of them showed marked pigmentation.<sup>5</sup>

Although it has been suggested polypoid melanoma to be a rare configuration, several large series report incidences ranging from 2% to 43%. The reason for this discrepancy relies on the pathologist’s definition.<sup>1–7</sup> Polypoid melanoma is defined as pigmented macule that transforms within months in a rapidly growing vertical phase invading both the epidermis and the papillary dermis.<sup>1–5</sup>

Poor prognosis is due both to the deep penetration at the time of surgical excision and to the high incidence of ulceration, which are known as independent prognostic factors. This explains the low 5-year survival rate because of early metastasis to lymph nodes and occult distant metastasis. As it is for breast cancer, the number of regional lymph nodes involved reduces long-term survival.<sup>2–5</sup> It seems that the rapid growth of this tumor is linked to an active vascularization that in turn facilitates early metastasis.<sup>7,8</sup> The typical polypoid melanoma is 2 cm in diameter, Clark level IV, ulcerated, and pigmented with high rate metastasis and poor prognosis.<sup>3,4</sup>

Clinically differential diagnosis includes neurofibroma, seborrheic keratosis, pyogenic granuloma, squamous cell carcinoma, basal cell carcinoma, and hemangioma. Differential diagnosis from polypoid Spitz nevus is one of the main concerns regarding pathologic examination because the latter, clinically, reproduces the silhouette of melanoma; also, histologically, it is equipped with cells showing prominent atypia with big nuclei and expansive nodules.<sup>8</sup> Pathologic distinctive features are shown in Table 2.

**CONCLUSIONS**

Since the first growth phase is radial-horizontal, early recognition of surface changes is essential. Early diagnosis of polypoid melanoma

Sentinel Lymph Node	Lymphatic Metastasis	Visceral Metastasis	Primary Treatment	Adjuvant Treatment	Follow-Up	No. Cases
NA	NA	NA	NA	NA	NA	4
—	—	—	Surgery 1-cm margin	—	6 y	1
—	Retroauricular lymph node	—	Surgery 1.5-cm margin	—	NA	1
NA	NA	NA	NA	NA	NA	22
Supraclavicular lymph nodes	—	—	Chemotherapy	Surgery + cryotherapy	48 mo	1
Negative SNB	No	No	Surgery 1-cm margin	No	48 mo	1

influences prognosis and survival. Because conventional staging methods for melanoma may not be reliable, complete workup, wide local excision (1–2 cm according to the region), and sentinel lymph node biopsy should be performed in all patients with pedunculated melanoma.

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# Concomitant Open Reduction of a Nasal Bone Fracture Combined With a Zygomatic Fracture Through a Subciliary Incision

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**Abstract:** Nasal bone fracture is the most common of the fractures of the facial skeleton. For centuries, these injuries have been managed with closed reduction, but because of low surgeon satisfac-

tion rates and high revision rates, open reduction is advocated in cases involving severe deviation of the nasal dorsum associated with septal fractures. There are many surgical approaches that can be used to expose the nasal bones, but we present a case where the subciliary incision was used to reduce and fixate the fracture in a patient with combined zygomatic fractures. Owing to the abundance of other concomitant facial fractures with nasal bone fractures, this approach can be used in patients with combined injuries to the facial skeleton, in whom an open reduction of the nasal bones is also required.

**Key Words:** Open reduction, nasal bone fracture, subciliary incision

Nasal bone fractures are the single most common of all the fractures of the facial skeleton, constituting up to 39% of all facial fractures.<sup>1</sup> In its treatment, closed reduction has been most widely used because of its simplicity and high patient satisfaction rate, ranging from 62% to 91%, depending on the study. However, surgeon satisfaction rates are rather low compared with those of patients, ranging from 21% to 65%, which has led surgeons to consider more aggressive approaches.<sup>2</sup> In addition, the rates of revisional surgery after closed reduction range from 14% to 50%, depending on the report, which suggests that open treatment in the early phase should be considered more often.<sup>3</sup>

Various reports have been made on open reduction for nasal bone fractures, some comparing the effects of open and closed reduction and some advocating graduated protocols.<sup>2,4,5</sup> Different routes for open reduction have been used in the studies, some using open wounds near the fracture site and some applying new incisions.<sup>6–8</sup> In this article, the authors report a case in which a subciliary incision was used to reduce a zygomatic fracture and in which further dissection was performed to expose the nasal bone and allow its fixation as well.

A 25-year-old man visited the emergency room complaining of pain in the left cheek and nose, with bilateral epistaxis and severe swelling on the left periorbital area. On the impression of a left zygomatic fracture combined with possible blow-out fracture and nasal

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