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CASE REPORTS
PRIKAZI SLUČAJEVA

NON-SPECIFIC CLINICAL MANIFESTATION OF THE NODULAR TYPE OF CUTANEOUS MELANOMA

NESPECIFIČNA KLINIČKA MANIFESTACIJA NODULARNOG TIPA MELANOMA KOŽE

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Abstract

Introduction. Nodular melanoma is an aggressive subtype of cutaneous melanoma characterized by rapid vertical growth, increased Breslow thickness at diagnosis, and early metastatic potential. Its atypical clinical presentation may mimic other skin tumors, leading to delayed recognition. **Case Report.** A 78-year-old patient presented with a giant, ulcerated, whitish, cauliflower-like tumor on the back, measuring 16 × 11 × 5 cm and attached by a narrow stalk. The initial clinical impression favored cutaneous squamous cell carcinoma. Radical excision with a 2.5 cm safety margin was performed. Histopathological examination confirmed nodular melanoma with Breslow thickness > 10 mm, Clark level IV, ulceration, satellitosis, and perivascular and intravascular invasion. Sentinel lymph node biopsy was recommended but declined. The patient did not return for follow-up, and the clinical outcome remains unknown. **Discussion.** This case highlights several diagnostic challenges. Giant nodular melanomas (> 10 cm) are rare, and minimal pigmentation may contribute to misdiagnosis. The tumor exhibited multiple high-risk features associated with nodal and distant metastasis. Early biopsy and accurate differential diagnosis are essential, as exophytic or atypical lesions may resemble non-melanocytic tumors. C**onclusion.** Atypical presentations of nodular melanoma require heightened clinical vigilance. Early recognition, appropriate surgical management, and adherence to staging protocols are essential for optimal outcomes.

Key words: Melanoma; Cutaneous Malignant Melanoma; Skin Neoplasms; Diagnosis, Differential; Signs and Symptoms; Biopsy

Sažetak

Uvod. Nodularni melanom predstavlja agresivan podtip kožnog melanoma, karakterisan brzim vertikalnim rastom, većom Breslou debljinom u trenutku dijagnoze i ranim metastatskim potencijalom. Njegova atipična klinička prezentacija može imitirati druge kožne tumore, što dovodi do odloženog prepoznavanja bolesti. **Prikaz slučaja.** Pacijent star 78 godina javio se sa velikim, ulcerisanim, beličastim, karfiolastim tumorom na leđima, dimenzija 16 × 11 × 5 cm, pričvršćenim uskom peteljkom. Inicijalni klinički utisak ukazivao je na planocelularni karcinom kože. Urađena je radikalna ekscizija sa bezbednosnom marginom od 2,5 cm. Histopatološka analiza potvrdila je nodularni melanom sa Breslou debljinom > 10 mm, Klark nivoom IV, ulceracijom, satelitima, kao i perivaskularnom i intravaskularnom invazijom. Preporučena je biopsija sentinel limfnog čvora, ali ju je pacijent odbio. Pacijent se nije odazvao na kontrole, pa njegov dalji klinički tok ostaje nepoznat. **Diskusija.** Ovaj slučaj ističe više dijagnostičkih izazova. Gigantski nodularni melanomi (> 10 cm) su retki, a oskudna pigmentacija može doprineti pogrešnoj dijagnozi. Tumor je pokazao više visokorizičnih karakteristika povezanih sa metastaziranjem u limfne čvorove i udaljene organe. Rana biopsija i precizna diferencijalna dijagnoza su od ključnog značaja, jer egzofitične ili atipične lezije mogu podsećati na neme-lanocitne tumore. **Zaključak.** Atipične i zavaravajuće prezentacije nodularnog melanoma zahtevaju povećanu kliničku budnost. Rano prepoznavanje, adekvatno hirurško lečenje i pridržavanje nacionalnih vodiča za lečenje bolesti od suštinske su važnosti za optimalne ishode.

Ključne reči: melanom; kutani maligni melanom; tumori kože; diferencijalna dijagnoza; znaci i simptomi; biopsija

Introduction

Melanoma is a malignant neoplasm arising from melanocytes, most commonly located in the skin, although it may also occur in other anatomical sites. In recent decades, it has become a significant global health concern due to its increasing incidence and high mortality rates [1,2]. According to the American Joint Committee on Cancer, melanoma is classified into several histopathological subtypes, including superficial spreading melanoma, nodular melanoma, lentigo maligna melanoma, acral lentiginous melano-

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Abbreviations
NM – nodular melanoma

ma, and unclassified variants [3]. Nodular melanoma (NM) accounts for approximately 10-15% of all cutaneous melanomas and represents the second most common subtype after superficial spreading melanoma. Clinically, NM typically presents as a rapidly enlarging, dome-shaped or nodular lesion, often deeply pigmented and most commonly located on sun-exposed areas, although it may also occur on covered regions. Compared with other melanoma subtypes, NM is associated with greater Breslow thickness at diagnosis, contributing to its more aggressive clinical course and poorer prognosis [4]. Even in its early stages, NM demonstrates a strong propensity for vertical growth and early metastatic dissemination to regional lymph nodes and distant organs [5]. Due to its rapid progression and occasionally atypical clinical presentation, nodular melanoma may be misdiagnosed as other cutaneous lesions, including squamous cell carcinoma, basal cell carcinoma, or benign proliferative conditions [6].

This report describes a case of giant nodular melanoma with an unusual clinical presentation, emphasizing the importance of maintaining high index of suspicion and performing timely histopathological evaluation of atypical skin lesions.

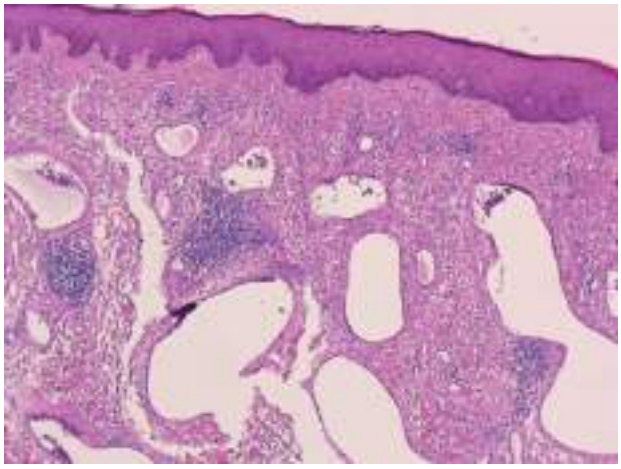

Figure 1. Clinical presentation of the nodular melanoma

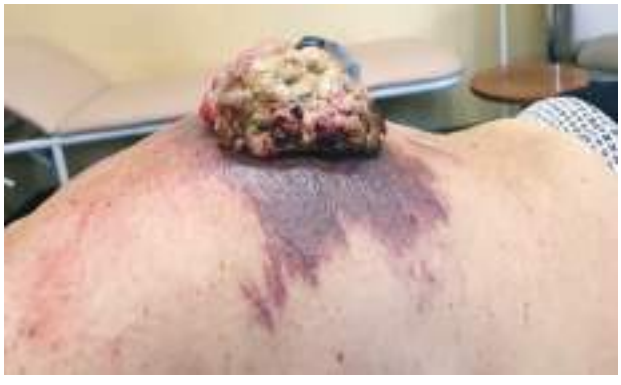

Figure 2. *Ex tempore* biopsy peritumorous tissue – without tumor cells

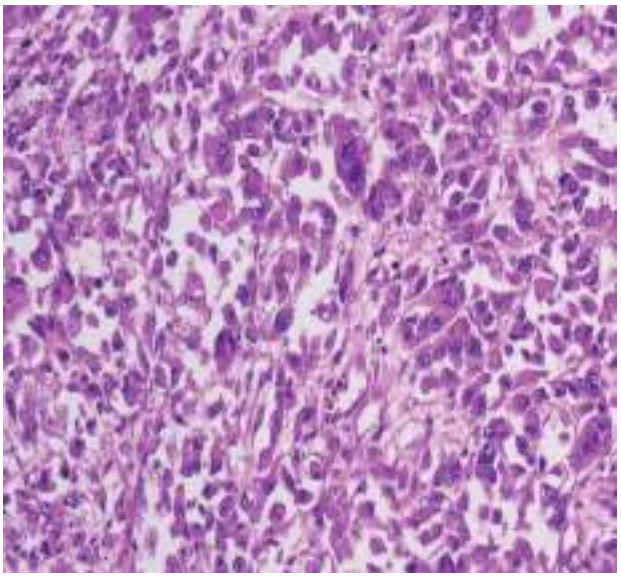

Figure 3. Bissare cells

Case Report

A 78-year-old patient presented with an ulcerated, predominantly whitish, cauliflower-like tumor located on the back, measuring 16 × 11 × 5 cm and attached by a narrow stalk. Based on its macroscopic appearance, the initial working diagnosis was cutaneous squamous cell carcinoma **(Figure 1).** Clinical examination and ultrasonography revealed no evidence of axillary or inguinal lymphadenopathy. An *ex tempore* biopsy was obtained from a darker erythematous

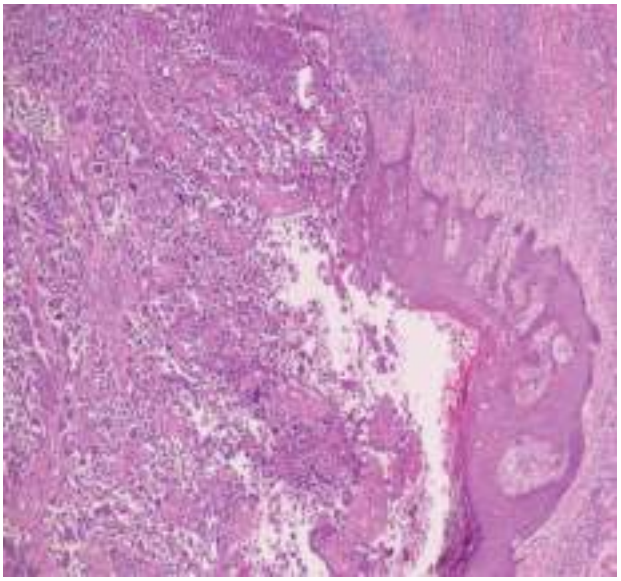

Figure 4. Border between tumor and healthy tissue

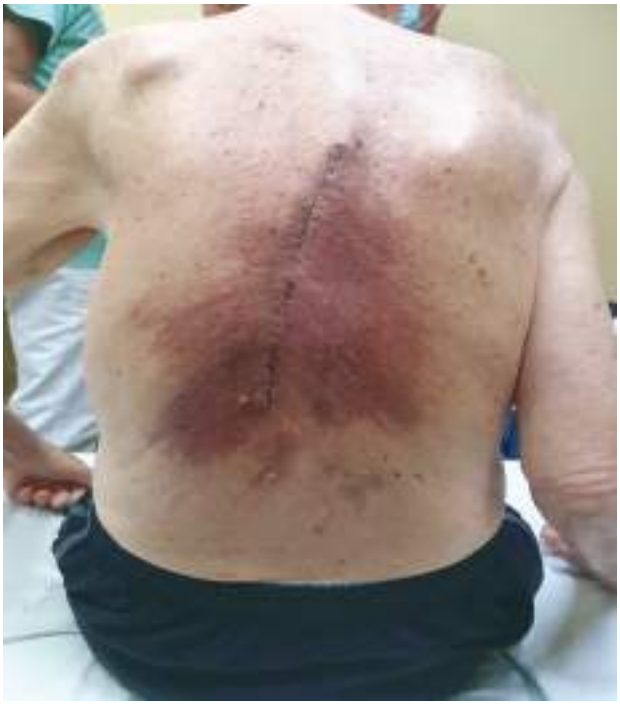

Figure 5. Fourteen days after radical excision

area at the tumor periphery to assist in margin determination; however, histopathological analysis revealed no malignant elements **(Figure 2).** The tumor was subsequently radically excised under general anesthesia with a minimum safety margin of 2.5 cm, extending to the level of the fascia. Definitive histopathological examination confirmed nodular cutaneous melanoma with a Breslow thickness greater than 10 mm and Clark level IV, accompanied by ulceration, satellitosis, and both perivascular and intravascular invasion **(Figures 3 and 4).** Based on these findings, sentinel lymph node biopsy was recommended in accordance with current melanoma guidelines; however, the patient declined further surgical intervention. The case was presented to the Oncology Committee for Soft Tissue Tumors at the Institute of Oncology of Vojvodina in Sremska Kamenica **(Figure 5).** The patient did not attend subsequent follow-up visits, and the current clinical outcome remains unknown.

Discussion

This case is notable for several clinically and diagnostically significant features. First, the tumor size and macroscopic appearance were highly unusual. The lesion presented as a large (16 cm), ulcerated, whitish, cauliflower-like mass with a narrow stalk located on the back. Such morphology is highly atypical for melanoma and represents a considerable diagnostic challenge. Giant nodular melanomas exceeding 10 cm are rare [7], and minimal or absent pigmentation further increases the likelihood of misdiagnosis or delayed diagnosis [6]. In this case, the predominantly amelanotic and exophytic appearance contributed to the initial clinical suspicion of squamous cell carcinoma.

Second, histopathological analysis revealed multiple high-risk features, including Breslow thickness >10 mm, ulceration, satellitosis, and perivascular and intravascular invasion, all of which are associated with an increased risk of regional and distant metastasis [8]. Nodular melanoma is characterized by the absence of a prolonged radial growth phase, resulting in early vertical invasion and advanced tumor thickness at diagnosis [9]. The presence of numerous mitotic figures indicates aggressive biological behavior [7].

An important limitation in this case relates to the intraoperative diagnostic approach. Frozen-section analysis (*ex tempore*) was performed based on the initial suspicion of squamous cell carcinoma and aimed to assess surgical margins. However, the biopsy was obtained from a peripheral erythematous area rather than from the most representative portion of the tumor. This likely explains the absence of malignant findings on frozen section and represents a limitation of the diagnostic approach in this case. Moreover, frozen-section analysis has inherent limitations in large, heterogeneous cutaneous tumors and is not considered reliable for the definitive evaluation of melanocytic lesions when melanoma is not clinically suspected.

Despite the extensive local tumor burden and multiple adverse histopathological features, no clinically evident regional or distant metastases were detected at presentation. Given the tumor thickness, ulceration, and satellitosis, this finding is unusual. Possible explanations include biological variability, host immune response, or differences in tumor biology; however, complete staging was not achieved, as the patient declined sentinel lymph node biopsy and further oncological evaluation.

This case underscores the importance of including melanoma in the differential diagnosis of large, ulcerated, exophytic, or amelanotic skin lesions. Adequate preoperative biopsy, thorough histopathological evaluation, and appropriate staging are essential to avoid diagnostic errors and ensure optimal management. The absence of clinically detectable metastases despite advanced local disease further enhances the educational value of this case.

Conclusion

Giant nodular melanoma may present with atypical and misleading clinical features, as illustrated by this case of a 16 cm ulcerated, predominantly whitish tumor on the back of a 78-year-old patient. The pres-

ence of high-risk histopathological characteristics – ulceration, Breslow thickness > 10 mm, satellitosis, and vascular invasion – underscores its aggressive nature. The initial misdiagnosis as squamous cell carcinoma highlights the need for heightened clinical awareness. Early biopsy, timely surgical excision with adequate margins, and appropriate staging, including sentinel lymph node evaluation, are critical for optimal management. The absence of follow-up in this case precludes assessment of clinical outcome and further emphasizes the importance of patient adherence to postoperative surveillance. Recognition of such atypical presentations may facilitate earlier diagnosis and improve prognosis.

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