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Dermoscopic Features of Twin Melanomas of the Lower Leg: A Case Report

Daniela Ledić Drvar[1], Magdalena Matak[2], Ivana Ilić[3], Ivana Manola[4], Ružica Jurakić Tončić[1], Božo Krušlin[5]

[1]University Hospital Centre Zagreb, Department of Dermatology and Venereology, School of Medicine University of Zagreb, Zagreb, Croatia; [2]General Hospital Zadar, Department of Internal medicine and Dermatology, Zadar, Croatia; [3]University Hospital Centre Zagreb, Department of Pathology and Cytology, Zagreb, Croatia; [4]Manola Polyclinic, Zagreb, Croatia; [5]"Sisters of Mercy Clinical" Hospital Centre, "Ljudevit Jurak" Department of Pathology and Cytology, Zagreb, Croatia and Department of Pathology, School of Medicine, University of Zagreb, Zagreb, Croatia

Corresponding author:
Daniela Ledić Drvar, MD, PhD
University Hospital Centre Zagreb
Department of Dermatology and Venereology
School of Medicine University of Zagreb
10000 Zagreb
Šalata 4
Croatia
dledic@kbc-zagreb.hr

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ABSTRACT Multiple primary malignancies, including melanoma, usually present singly over time rather than simultaneously. Hovewer, approximatelly one third of the patients develop multiple primary melanomas. We present a case of a 57-year-old woman, with two grossly suspicious, unevenly pigmented lesions on her left lower leg measuring up to 8 and 11 mm. Dermoscopy of both lesions showed similar findings with complete asimmetry of colour and structure. More than four colours including milky red and accumulation of pigment at 1 o'clock were observed in the smaller lesion. Dermoscopy of the largest lesion showed more than 3 colours, milky-red areas, and a slight blue-white veil. Histopathology of both lesions revealed melanoma. Although uncommon, multiple primary melanomas do appear. Careful dermoscopical evaluation of all lesions is mandatory in order to not miss such cases.

KEY WORDS: melanoma, dermoscopy, primary, multiple

INTRODUCTION

Once a rare cancer, the incidence of melanoma in most developed countries has risen faster than any other cancer type since the mid-1950s (1). Cutaneous melanoma is the eighth most commonly diagnosed cancer in the Republic of Croatia in both sexes (2). Both incidence rate and mortality are stil on the rise. According to the National Cancer Registry, incidence rate in 2016 was 19.2/100,000 inhabitants with 800 new melanoma cases (2).

Multiple primary malignancies in a patient usually present singly over time rather than simultaneously (3). Synchronous melanomas are primary melanomas which develop simultaneously, not representing metastatic disease, and are also called twin melanomas. Twin melanomas are defined as two melanomas in same person, at same time, on the same body site. Metachronous melanoma develops after a minimum of 6 months after the first melanoma. In case of

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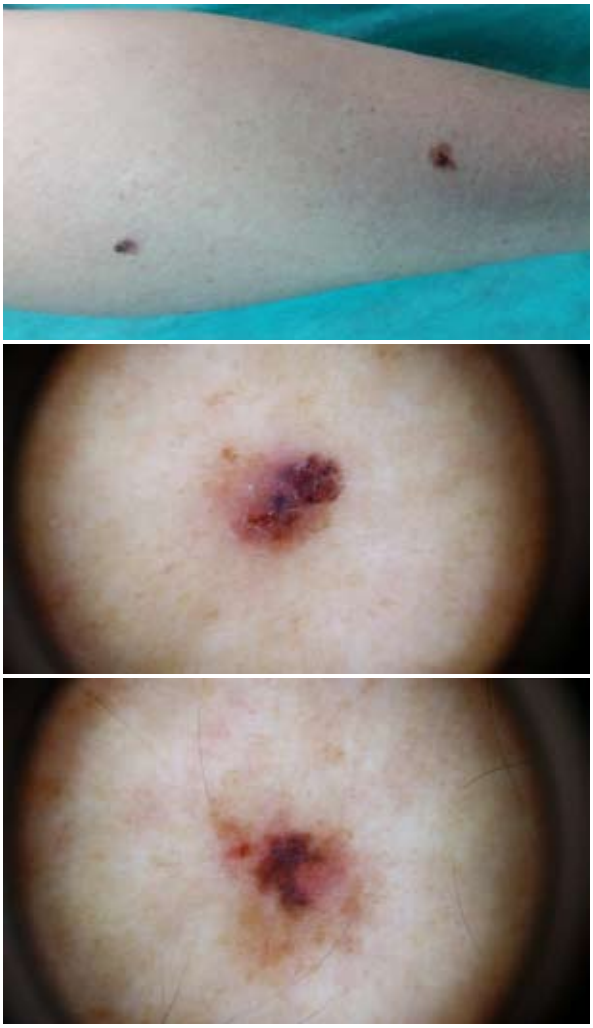

Figure 1. (a) Clinical presentation of two primary melanomas on the patient's left lower leg. (b) Dermoscopic image of proximal lesion showed complete assimetry of colour and strucuture, >4 colours including milky red, and accumulation of pigment at 1 o'clock. (c) Dermoscopic image of distal lesion showed >3 colours, milky-red areas, and slight blue-white veil.

metachronous melanomas, there is a possibility that the second lesion is not detected at the time of diagnosis of the first lesion. The most common dermoscopic features of melanomas are the multicomponent pattern, asymmetry, blue-gray veil, milky-red areas, regression structures, and color variety. Most of the synchronous lesions are dermoscopically similar (4) as well as melanomas on sun-damaged skin (4). The percentage of dermoscopically different melanomas is higher in patients with nonsynchronous melanomas and in those with a family history of melanoma (4).

CASE REPORT

A 57-year-old woman, skin phototype II according to Fitzpatrick, presented for the first time to our Clinic for check-up of pigmented lesions. Her personal as well as family history of melanoma was negative.

On clinical examination, two suspicious, unevenly pigmented lesions of irregular shape were found on her left lower leg (Figure 1, a). The proximal lesion was 8×6 mm in size and the distal one was 11×10 mm in size. Lesions had appeared 5 months prior to the examination.

Dermoscopy of both lesions showed complete asimmetry of colour and structure. More than four colours, including milky red, and accumulation of pigment at 1 o'clock were observed in the proximal lesion (Figure 1, b). Dermoscopy of the distal lesion showed more than 3 colours, milky-red areas, and a slight blue-white veil (Figure1, c).

The patient was referred for urgent excision of both lesions. Histopathology of both lesions revealed melanoma (Figure 2 a and b). Proximal melanoma was stage pT1a, with a Breslow thickness of 0.81 mm, without ulceration and mitosis. Imunohistochemical analysis showed Melan A and HMB45 positivity (Figure 2 c and d). The distal melanoma was stage pT1b, with a Breslow thickness of 0.61 mm, with no ulceration and one mitosis per mm^2. Resection margins in both lesions were free of tumour cells.

Sentinel lymph node biopsy showed no metastasis in regional lymph nodes. Re-excesion of cicatrices showed no melanoma cells.

DISCUSSION

Previous history of melanoma increases the risk for another primary melanoma, with 5%-15% of individuals developing multiple primary melanomas, which may appear decades after the diagnosis of the initial lesion, stressing the need for long-term surveillance (5). In patients with multiple primary melanomas, roughly one-half develops a second primary tumour in the same region of the body (i.e. the trunk, extremity, head, and neck) and approximatelly one-half develops a second primary melanoma within the first year of the initial diagnosis. Lesions are synchronous in 26% to 40% of patients with multiple primary melanomas (6). Simultaneous occurrence of multiple lentigo maligna and primary melanomas have been reported in a few patients (7). There was no survival disadvantage for patients with multiple primary lesions (8). Although dermatologists are trying to detect melanoma in early stage with the use of dermatoscopy, we are still witnessing a high percentage of melanoma in the advanced stage of diagnosis, which is particularly related to nodular melanoma.

Even with the aid of a dermatoscopy, identification of new lesions and significant changes in nevi

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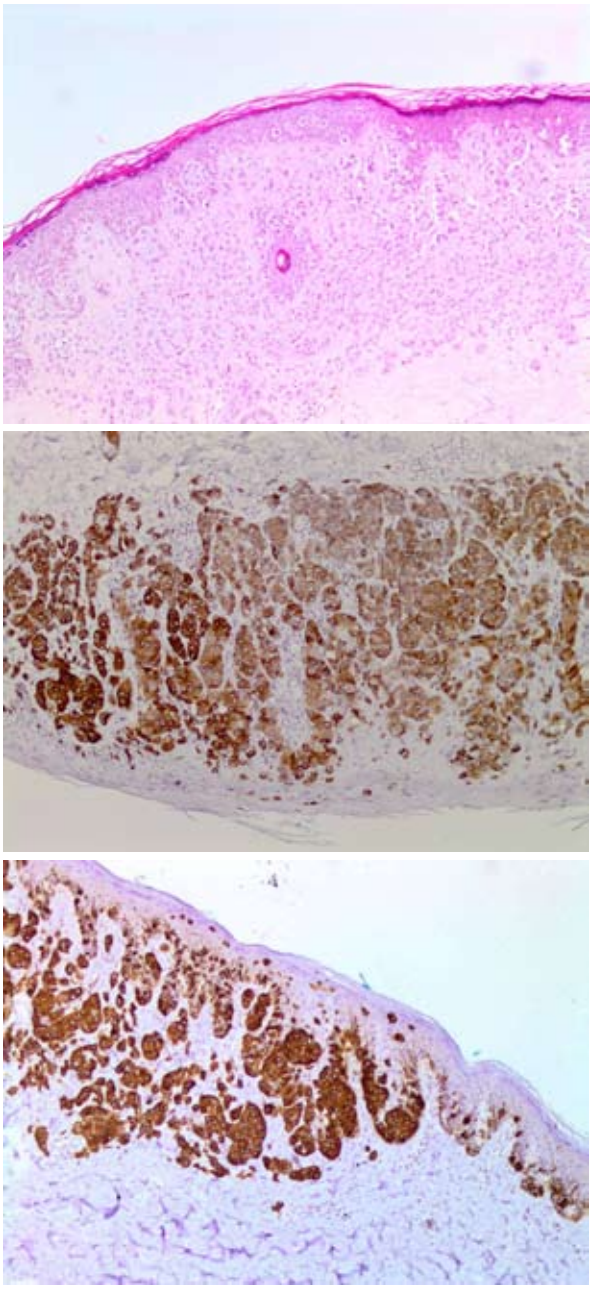

Figure 2. (a) and (b) Histopathologic findings in lesions A and B revealed invasive melanomas, forming multiple irregular nests in the dermis.Stain and magnification: hematoxylin and eosin ×100. (c) Immunohistochemical analysis of melanoma in lesion A. There was immunohistochemical expression of Melan-A (HMB45) in epidermal and dermal atypical melanocytes. Epidermal atypical melanocytes showed Pagetoid spread. Stain and magnification: Melan A ×100. (d) Immunohistochemical analysis of melanoma in lesion B. Multiple irregular nests in the dermis are stained brown. Stain and magnification: Melan A ×100.

in individuals with multiple pigmented lesions and atypical mole syndrome can be challenging, making total body mapping and digital dermoscopy of great benefit to the diagnostic process (9).

CONCLUSION

Although rare, multiple primary synchronous melanomas do appear. Based on experience of diagnosing twin melanomas, careful dermoscopic evaluation of each lesion is mandatory in order not to miss it.

References:

1. Erdei E, Torres SM. A new understanding in the epidemiology of melanoma. Expert Rev Anticancer Ther. 2010;10:1811-23.
2. Croatian Institute of Public Health. Croatian National Cancer Registry. Cancer incidence in Croatia 2016. Bulletin No. 41, Zagreb, 2019.
3. Cheng S, Nambi R. Simultaneous occurence of five primary melanomas and six melanomas in situ in a patient. Clin Exp Dermatol. 2012;37:210-1.
4. Moscarella E, Rabinovitz H, Puig S, Zalaudek I, Oliviero MC, Brownet L, *et al*. Multiple primary melanomas: do they look the same? Br J Dermatol. 2013;168:1267-72.
5. Paek SC, Sober AJ, Tsao H, Mihm Jr MC, Johnson TM. Cutaneous melanoma. In: Wolff K, Goldsmith L, Katz S, Gilchrest B, Paller A, Leffel D, eds. Fitzpatrick's Dermatology in general medicine, 7th edition, New York:McGraw Hill, 2008. pp. 1135-6.
6. Cautela J, Moscarella E, Lallas A, Longo C, Piana S, Argenziano G. Twin melanomas. J Am Acad Dermatol. 2015;73:e165-8.
7. Massi D, Nardini P, De Giorgi V, Carli P. Simultaneous occurence of multiple melanoma in situ on sun damaged skin (lentigo maligna), solar lentigo and labial melanosis: the value of dermoscopy in diagnosis. J Eur Acad Dermatol Venerol. 1999;13:193-7.
8. Slingluff CL Jr, Vollmer RT, Seigler HF. Multiple primary melanoma: incidence and risk factors in 283 patients. Surgery. 1993;113:330-9.
9. Silva JH, Sá BC, Avila AL, Landman G, Duprat Neto JP. Atypical mole syndrome and dysplastic nevi: identification of populations at risk for developing melanoma - review article. Clinics. 2011;66:493-9.