

Multiple Primary Acral Lentiginous Melanomas (MPALM)

Miriam González¹, Georgi Tchernev^{2,3*}, Anastasiya Atanasova–Chokoeva³, Katlein França⁴, Torello Lotti⁵

¹Department of Internal Medicine, Autonomous University of Honduras (UNAH), Service of Dermatology and Dermatologic Surgery, School University Hospital (HEU), Tegucigalpa 11101, Honduras; ²Medical Institute of Ministry of Interior (MVR) Sofia, Department of Dermatology and Dermatologic Surgery, Sofia, Bulgaria; ³“Onkoderma”- Polyclinic for Dermatology and Dermatologic Surgery, Sofia, Bulgaria; ⁴Institute for Bioethics & Health Policy; Department of Dermatology & Cutaneous Surgery; Department of Psychiatry & Behavioral Sciences, University of Miami, Miller School of Medicine - Miami, FL, USA; ⁵University of Rome “G.Marconi” Rome, Italy

Abstract

Citation: González M, Tchernev G, Atanasova–Chokoeva A, França K, Lotti T, Multiple primary acral lentiginous melanomas (MPALM). Open Access Maced J Med Sci. <https://doi.org/10.3889/oamjms.2017.162>

Keywords: melanoma; multiple primary tumours; acral located tumours; amputations; staging.

***Correspondence:** Tchernev G. Medical Institute of Ministry of Interior (MVR) Sofia, Department of Dermatology and Dermatologic surgery. E-mail: georgi_tchernev@yahoo.de

Received: 03-Jul-2017; **Revised:** 11-Jul-2017;
Accepted: 22-Jul-2017; **Online first:** 02-Oct-2017

Copyright: © 2017 Miriam González, Georgi Tchernev, Anastasiya Atanasova–Chokoeva, Katlein França, Torello Lotti. This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0).

Funding: This research did not receive any financial support.

Competing Interests: The authors have declared that no competing interests exist.

We present a rare case of a patient with multiple primary acral lentiginous melanomas of the foot. We would like to highlight the importance of whole-skin examination in all patients, even by the general practitioners, aiming the maximal early detection of acral lentiginous melanomas, considering their rapid progression, early metastatic spread and extremely poor prognosis. It can be extrapolated from current literature; however, that appropriate management of these patients, including staging work and surgical intervention, is to be determined by the individual characteristics of the melanoma and the patient's concomitant risk factors, if any.

A 74-year-old male, mixed race patient, from a rural area in Honduras presented to the dermatology clinic, with two lesions located in the middle and distal third part of his right foot. The bigger lesion started two years ago, as a small pigmented spot and progressively increased its size, without association with any spontaneous subjective symptoms. Neither comorbidities nor the use of medications was reported in the medical history. Occupational risk factors included agricultural activities. Clinical examination revealed a nodular pigmented formation, measuring 10/13 cm, with sharply defined, irregular borders and ulcerated surface, located on the lateral part of the skin below the V, IV and III digit, which was painful on palpation and touch (Fig. 1).



Figure 1: Clinical manifestation of an acral lentiginous melanoma in a 74-year-old male patient

Posteriorly the patient developed a similar flat pigmented lesion, measuring 4/5 cm occurred on the

median vault of the same foot (Fig. 2). Edema of the entire foot was also observed, leading to functional limitation of the affected leg (Figs. 1 and 2).



Figure 2: Clinical manifestation of a same tumour, within cutaneous transit metastasis and diffuse oedema of the entire foot and functional limitation

The patient reported weight loss and deterioration of his general condition, more pronounced in the last months. Visible bilateral inguinal lymphadenopathy was also detected by the clinical examination. The enlarged lymph nodes were measuring approximately 10 cm, with firm, the stony structure on palpation, leading to painful sensation. Paraclinical examination showed elevated LDH, without significant deterioration in the other blood and biochemical markers.

Histological examinations after incisional biopsies confirmed the diagnosis of 2 acral located lentiginous melanomas. A tumour was in stage IIIc (T4bN3M0), as no other sides of involvement were detected via imaging diagnostic procedures. Amputation of the foot was planned with bilateral inguinal lymphadenectomy, followed by immunotherapy in a later stage.

Acral lentiginous melanoma represents approximately 2-3% of all melanomas [1]. It has been postulated that this type shows some epidemiologic characteristics that differ from other types of melanoma. It occurs more often later in life, on specific palmoplantar locations and it is unaffected directly by the sunlight, in contrast to other melanoma subtypes [2]. Although relatively rare in a white patient, this subtype is associated with a worse prognosis than other melanomas subtypes [3]. About 80% of the cases affect the skin of the lower limb [1]. In contrast with other studies, Nam KW et al. (2016) did not find a worse prognosis or lower survival rate for melanoma of the foot in comparison with other melanomas [4]. That could be explained by the fact that locoregional metastasis from melanoma with this localisation is more easily detected by the patients themselves. The lower survival rate, associated with this subtype, compared with other melanomas, however, indicates that the tumour behaviour is unpredictable. Furthermore, in-transit metastasis carries a poor prognosis, associated with inoperability and dissemination of the process [5]. Such cases

usually require spread amputation, leading to functional disturbances and poor quality of life, independently of the survival rate [5].

Acral melanoma (AM) is still one of the most poorly studied melanomas [6]. It presents beyond the fifth decade of life and usually is a BRAF wild-type melanoma [6]. The patients usually have neither familiar melanoma nor germline mutations in CDKN2A/CDK4 genes [6]. Multiple AM in Caucasians is very rare [6]. BRAF mutations are possible, especially in a high-risk set of patients with multiple nevi. The specific acral examination must be recommended since AM still suffers delayed detection [6].

We present a rare case of a patient with multiple primary acral lentiginous melanomas of the foot. We would like to highlight the importance of whole-skin examination in all patients, even by the general practitioners, aiming the maximal early detection of acral lentiginous melanomas, considering their rapid progression, early metastatic spread and extremely poor prognosis. It can be extrapolated from current literature. However, that appropriate management of these patients, including staging work and surgical intervention, is to be determined by the individual characteristics of the melanoma and the patient's concomitant risk factors, if any [7].

References

1. Asgari MM, Shen L, Sokil MM, Yeh I, Jorgenson E. Prognostics factors and survival in acral lentiginous melanoma. *Br J Dermatol.* 2017 Apr 22. <https://doi.org/10.1111/bjd.15600>
2. Kuchelmeister C, Schaumburg-Lever G, Garbe C. Acral cutaneous melanoma in Caucasians: clinical features, histopathology and prognosis in 112 patients. *Br J Dermatol.* 2000; 143(2):275-80. <https://doi.org/10.1046/j.1365-2133.2000.03651.x> PMID:10951133
3. Bradford PT, Goldstein AM, McMaster ML, Tucker MA. Acral lentiginous melanoma: incidence and survival patterns in the United States, 1986-2005. *Arch Dermatol.* 2009; 145(4):427-34. <https://doi.org/10.1001/archdermatol.2008.609> PMID:19380664 PMCid:PMC2735055
4. Nam KW, Bae YC, Nam SB, Kim JH, Kim HS, Choi YJ. Characteristics and Treatment of Cutaneous Melanoma of the Foot. *Arch Plast Surg.* 2016; 43(1):59-65. <https://doi.org/10.5999/aps.2016.43.1.59> PMID:26848447 PMCid:PMC4738130
5. Hayes AJ, Clark MA, Harries M, Thomas JM. Management of in-transit metastases from cutaneous malignant melanoma. *Br J Surg.* 2004; 91(6):673-82. <https://doi.org/10.1002/bjs.4610> PMID:15164434
6. Lacruz G, Cárdenas I, Carrera C, Díaz A, Puig-Butille JA, Badenas C, Malvehy J, Puig S. Multiple primary acral melanomas in two young caucasian patients. *Dermatology.* 2014;228(4):307-10. <https://doi.org/10.1159/000362207> PMID:24942556
7. Hutcheson AC, McGowan JW 4th, Maize JC Jr, Cook J. Multiple primary acral melanomas in African-Americans: a case series and review of the literature. *Dermatol Surg.* 2007;33(1):1-10. <https://doi.org/10.1097/00042728-200701000-00001>