

## Multiple Primary Acral Lentiginous Melanomas (MPALM)

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### Abstract

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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 distal and medial third of his right foot, affecting 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].

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