

## Case Report

### ACRAL LENTIGINOUS MELANOMA OF FOOT: A RARE CASE STUDY

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#### **ABSTRACT:**

The term ALM was first described by Reed as a subtype of melanoma. It was so named because of its predilection of acral (distal) areas of the body, particularly the palms, soles and the sub-ungual areas, and its distinct radial or "lentiginous" growth phase. ALM represents the rarest of the four sub-types of cutaneous melanoma yet is the most common variety diagnosed on the foot. Reed described its diagnosis as being based on its histological, intra-dermal features showing a diffuse proliferation of large atypical melanocytes along the epidermal-dermal junction which is dispersed in a lentiginous pattern with marked acanthosis and elongation of the rete ridges. This is the case report of a patient that reported with acral lentiginous melanoma of foot.

**Key words:** Acral Lentiginous Melanoma

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#### **INTRODUCTION**

Melanoma is a malignant tumour arising from melanocytes. The number of cases of the disease worldwide is increasing faster than any other form of cancer amongst Caucasians.<sup>1</sup> Although the disease is uncommon in the UK, the incidence of cutaneous melanoma continues to rise and it has been calculated that the lifetime risk for developing the disease is 1:120 for men and 1:95 for women.<sup>2</sup> Currently there are around 8500 new cases annually in the UK with around 1800 melanoma related deaths.<sup>3</sup>

Australia has the highest annual incidence of melanoma in the world. The lifetime risk of developing melanoma before the age of 75 is 1: 24 for males and 1:34 for females. In 2003, there were 9,524 new cases of melanoma reported in Australia with an annual death rate of around 1500.<sup>4</sup> Cutaneous melanoma can develop at any site. The lower limb represents around 30% of all primary cutaneous melanomas, particularly in women, with the foot and ankle representing 3–15% of all cutaneous melanomas.<sup>5</sup>

Acral lentiginous melanoma is a rare subtype of cutaneous malignant melanoma mainly arising on extremities. It is comprised of malignant melanocytes, which can become invasive with time and its an uncommon skin malignancy that occurs with equal frequency in all races and has a worse prognosis than other types of melanoma, it presents as dark, irregular macules, papules, or nodules on the feet and, less commonly, the hands. The histologic findings of acral lentiginous melanoma are characterized by an asymmetric, poorly circumscribed proliferation of continuous single melanocytes at the dermo-epidermal junction. Single melanocytes predominate over nests.<sup>6</sup>

#### **Case report**

A 55 year old female came to OPD with complaints of painful blackish lesion over sole of right foot since 2 months, on examination there were multiple blackish proliferative growth over plantar aspect of right foot at the base of 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> toe, size 4x4cm (**Fig1.**) with tender visible inguinal lymphadenopathy; **USG**

**guided FNAC** of right inguinal lymph node shows deposits of malignant melanoma and USG abdomen shows features suggestive of metastasis of liver and metastatic lymph node in para aortic lymph nodes of right inguinal region. HRCT thorax suggestive of metastatic etiology in lung and liver. **Histopathology findings** of wedge biopsy suggestive of malignant melanoma with predominant melanoma cells are noted within epidermis and dermis, pigmented tumor cells arranged in irregular contour as shown in **Fig 2.** and **Fig 3.**



Figure 1

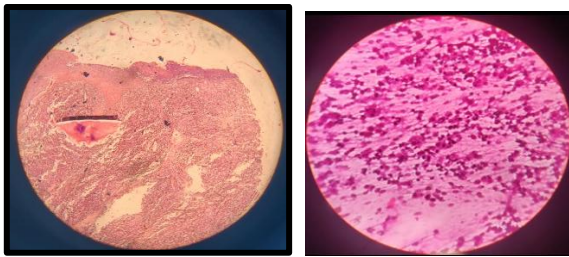


Figure 2

Figure 3

### Discussion

Acral lentiginous melanoma of the foot is a rare entity of malignant melanoma in older populations and needs to be differentiated from other benign and malignant conditions including chronic foot diabetic ulcer, acral lentiginous nevus, pyogenic granuloma, paronychia, hematoma, onychomycosis, palmoplantar wart, poroma, schwannoma, and squamous cell carcinoma. It most often occurs on the plantar surface and toes, and presents as asymmetric, irregularly bordered, black to brown papule or raised nodule.<sup>6</sup>

ALM is the most common subtype of melanoma found in patients of Asian or African descent and tends to more advanced at presentation due to delays in diagnosis. Surgical treatment is difficult owing to the complexity and functional importance of the hands and feet and reconstruction after resection is usually needed.<sup>7</sup>

The prognosis for patients with ALM depends on stage of disease and tends to be worse than with other subtypes of melanoma. Newer treatment modalities such as immunotherapies and targeted agents are being tested in patients with advanced ALM with some promising preliminary results.<sup>7</sup>

Bristwo IR et al.<sup>8</sup> At a tertiary skin tumour centre, a retrospective review was undertaken of all patients diagnosed with the tumour at the level of ankle or below. Over a six year period, 27 cases (20 female, 7 male) were identified with positive histology confirming the disease. The age ranged from 35–96 years of age (mean 62.7 years). The majority of the cohort were white (59%) with plantar lesions (62%). 33% of patients were initially were diagnosed incorrectly. The average time taken from the point of recognition, by the patient, to the lesion being correctly diagnosed was around 13.5 months. Earlier diagnosis of ALM requires education at both a patient and practitioner level.

Kosmidis C et al<sup>9</sup> reported a case of the rarest acral lentiginous type. *Case Report.* A 58-year-old man presented with a melanoma resembling lesion over the sole of his right foot, measuring 15–20 mm in diameter. An excisional biopsy with a narrow (2 mm) margin of surrounding skin was obtained. Histological findings were consistent with a diagnosis of acral lentiginous melanoma. Sentinel lymph node biopsy was also performed and micrometastases were not identified in frozen-section examination. According to the AJCC system, the tumor stage was IB (T2aN0M0). A wide local excision of the biopsy scar with a margin of 2 cm was performed. A split-thickness thick skin graft was used to reconstruct the excisional defect. During an 18-month followup, no local or distant recurrence has been observed. This paper aims to extract an updated rational approach to the management of this disease out of an enormous body of knowledge.

### Conclusion

In India there is low incidence of malignant melanoma, which could be attributed to under-reporting and missed diagnosis with incidence less than 0.5 in 1,000,000 Patients with previous history of malignancies or family history of melanoma or multiple asymmetric moles need to be screened regularly for early diagnosis and wide spread excision for better quality of life

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