



# Acral Melanoma Presenting with Lung Invasion and a Giant Inguinal Mass

## Akciğer İnvazyonu Ve İnguinal Bölgede Dev Kitle İle Prezente Olan Akral Melanom

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### Abstract

Although malignant melanoma is a rare type of skin cancer, it accounts for most skin cancer-related deaths. Foot lesions may be ignored by both patients and clinicians and could therefore lead to advanced disease. An acral melanoma may also be confused with a pressure ulcer and result in a late diagnosis. The need to perform a skin biopsy should therefore be considered when dealing with protracted wounds. In this report, we present the case of an 84-year-old female patient with malignant melanoma, which was diagnosed late, recurred in the same area following surgery, and caused lung metastasis and a giant inguinal mass.

**Keywords:** Acral melanoma, atypical presentation, giant inguinal mass

### Öz

Malign melanom, nadir görülen bir cilt kanseri türü olmasına rağmen cilt kanserlerine bağlı ölümlerin çoğunluğunu oluşturur. Ayaktaki melanomlar hem hasta hem de klinisyen tarafından önemsenmeyebilir ve sonrasında hasta metastatik lezyonlar ile prezente olabilir. Ayrıca bu yaralar basınç ülseri ile karıştırılabilir ve bu durum tanının gecikmesine neden olabilir. Uzun süre iyileşmeyen ayak yaralarında cilt biyopsisi yapılması gerektiği unutulmamalıdır. Biz bu yazıda; opere edilmesine rağmen ayağın aynı bölgesinde nüks eden, akciğer metastazı ve inguinal bölgede dev kitleye neden olan, akral melanomlu 84 yaşında bir kadın hastayı sunduk.

**Anahtar Kelimeler :** Akral melanom, atipik prezentasyon, dev inguinal kitle

## INTRODUCTION

Although malignant melanoma is a relatively rare disease, it is one of the deadliest forms of skin cancer. Malignant melanoma accounts for only 4% of all skin cancers, yet it is responsible for about 79% of skin cancer-related deaths. Metastatic malignant melanoma is considered the most aggressive form of skin cancer (1-3).

Malignant melanoma has a better prognosis in females than in males. Women generally have thinner tumors because cutaneous melanoma in females is mainly localized in the extremities where it can be detected at an earlier stage and more easily. Women also tend to accept health advice better, and when a lesion occurs, they seek out a clinician earlier than men (4, 5). Some experts also think that estrogen may play a possible protective role in melanoma (6).

Previous studies have raised the possibility of an especially poor prognosis in cases of acral melanoma. Foot lesions are often ignored by both patients and clinicians, so this special group of patients may receive inadequate treatment because of a delayed diagnosis or misdiagnosis (1, 7-9). Even when noticed early, the possibility of melanoma might not be considered immediately. In cases of persistent foot ulcers, early biopsy is vital to exclude other causes of the ulcers, especially in the presence of atypical ulcer symptoms such as pigmentation and granulation tissue (10).

In this report, we present a case of a patient with acral melanoma and a fatal prognosis. The growth started as a small skin lesion in the plantar region of the foot and grew rapidly. Despite surgery, it relapsed in the same area and caused a lung invasion as well as a giant metastatic mass in the inguinal region.

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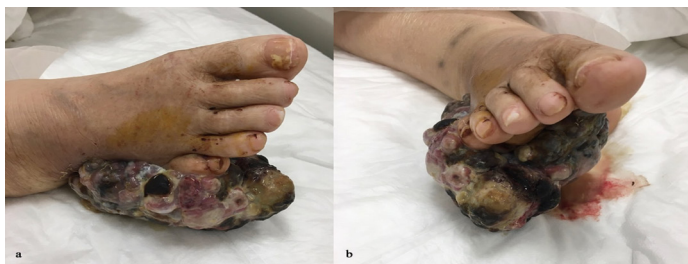
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## CASE REPORT

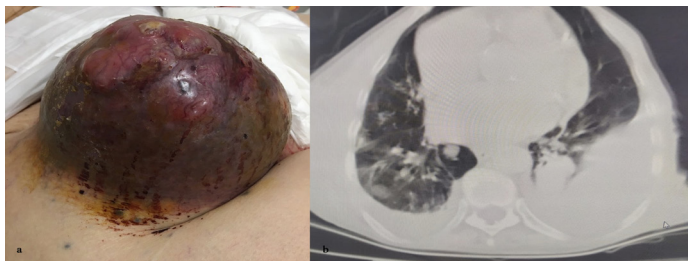
An 84-year-old female patient was admitted because of a largely expansive acral melanoma on her right foot and a giant metastatic mass in the right inguinal area. The lesion first appeared as a small brown spot on the right foot plantar region in 2011. A year later, an ulceration occurred on this lesion, and transparent drainage was apparent. In 2014, the patient presented at the hospital with complaints of a rapidly growing lesion and purulent drainage.

The lesion, which had turned into a mass on the skin, was resected, and skin tissue transplantation was performed on the resected area. A histological evaluation of the mass revealed malignant melanoma. Positron emission tomography scanning of the patient showed multiple metastases in the lung and inguinal lymph nodes. Because the patient was 79 years old at the time, the relatives of the patient declined chemotherapy. The patient had no complaints for three years following the surgical resection. However, the lesion and drainage subsequently reappeared in the same area. The lesion had been small in the operation site but had spread over a larger area during the course of the three years.

At her presentation to our hospital, the patient showed an infected mass, which covered half of the plantar face of the foot and extended to the dorsal region (Figures 1a, 1b). In the previous six months, the lymph nodes in the right inguinal region had become a giant metastatic mass (Figure 2a). The medical state of the patient was critical, and oral intake was reduced. She was experiencing severe respiratory distress due to diffuse metastatic masses and consolidations in the lung (Figure 2b). Despite all possible interventions, the patient died.



**Figures 1a, 1b.** A malignant melanoma mass at first presentation to our clinic; the mass subsequently spread from the plantar region to the dorsal side of the right foot.



**Figure 2a.** Metastatic lymph nodes that merged into a giant mass in the right inguinal region **Figure 2b.** Diffuse metastatic masses, consolidations, and bilateral pleural effusion in the lung

## DISCUSSION

In this report, we have presented the case of an 84-year-old woman with an acral melanoma. She underwent surgery but had a recurrence of the disease over a nine-year period. The patient's relatives declined chemotherapy following the melanoma diagnosis. During a follow-up, she showed lung metastasis and a giant metastatic mass in the inguinal region.

The most important prognostic factor in malignant melanoma is the thickness of the tumor (depth of invasion) in millimeters. Other important factors include the level of invasion, ulceration, regression, host lymphocytic inflammatory response, mitotic index, angiolymphatic invasion, microsatellitosis, and growth phase (radial or vertical) (11). According to the cancer rankings by gender in the United States, malignant melanoma is the fifth most frequent cancer in men and the seventh most frequent cancer in women (12). It is not seen as frequently as basal cell and squamous cell carcinomas, but melanoma causes more deaths than any other skin cancer (13, 14).

Approximately 33% of melanomas arise in the lower limbs. Screening of the lower extremities and feet is therefore important for the early detection of melanoma. Foot and ankle melanomas are located in less visible parts of the body, so delays in diagnosis are possible (15). Furthermore, melanoma tends to resemble ulcerative lesions of the foot and ankle.

When compared with ulcerations associated with trauma or diabetic or alcoholic neuropathy, invasive melanoma may not show distinguishable visual features. A biopsy should therefore be performed to exclude malignancy in any ulcerations or suspicious lesions that do not heal with standard care. Effective treatment of melanoma is possible with a diagnosis of limited disease (16, 17).

Some concerns have been raised that primary melanoma of the foot could be linked to a worse disease course. Previous studies have indicated that the anatomical area of the foot is an independent factor affecting the prognosis of melanoma. The 5-year survival rate for melanoma on all parts of the body is 91.7%. By contrast, invasive melanoma of the foot has a 5-year survival rate of only 68.4%. A previous report indicated that 54.4% of the foot melanomas in the study sample had already reached a depth of >2 mm by the time of diagnosis, and 48.4% of these had positive sentinel lymph node involvement (16).

Several studies have shown that the generally poor prognosis of patients with foot melanoma may result from the different characteristics of the tumor biology. Melanomas occurring on the hands and feet are linked to worse prognostic and biological factors regardless of the lentiginous histologic type (18). Minagawa et al. found that plantar melanoma of the foot occurred more frequently in locations exposed to mechanical stress, especially the heel and forefoot. These are also the areas of the foot most susceptible to the development of

calluses and pressure ulcers (19).

Initial biopsies in 54.4% of invasive melanoma lesions have been reported as >2 mm deep, and 29% have been found to be ulcerated. The diagnosis and treatment of melanomas of the foot may be delayed because of confusion with other diseases that tend to induce pedal ulcerations, such as diabetes, neuropathy, and peripheral vascular disease. However, the prevalence of metastatic disease and the 5-year mortality rate increases in lesions deeper than 1 mm; the application of screening methods and increased patient awareness of this disease are therefore crucial for patient survival (14-16).

## CONCLUSION

Malignant melanoma is a relatively rare type of skin cancer, yet it has a high mortality rate. Melanomas of the plantar area of the foot can be confused with pressure wounds related to other disorders and might therefore be ignored. This could lead to diagnosis long after the metastatic form has developed. The patient in our case study was not concerned about the foot ulcer, and it was therefore diagnosed in the metastatic stage. Early and aggressive treatment could help increase the overall 5-year survival rates of patients with acral melanoma.

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**Conflict of Interest:** The authors declare that they have no competing interest.

**Informed Consent:** The patient's relatives provided their consent for the publication of the content of this report.

## REFERENCES

- Gao W, Chen D, Ran X. Malignant melanoma misdiagnosed as diabetic foot ulcer: A case report. *Medicine (Baltimore)*. 2017;96.
- Jemal A, Siegel R, Xu J, et al. Cancer statistics, 2010. *CA Cancer J Clin*. 2010;60:277-300.
- Samdariya S, Kumar D, Vishwanathan C, et al. An unusual case of masquerading malignant melanoma. *Clin Cancer Investig J*. 2015;4:422.
- Chamberlain AJ, Fritschi L, Giles GG, et al. Nodular type and older age as the most significant associations of thick melanoma in Victoria, Australia. *Arch Dermatol*. 2002;138:609-14.
- Giblin A-V, Thomas J. Incidence, mortality and survival in cutaneous melanoma. *J Plast Reconstr Aesthet Surg*. 2007;60:32-40.
- Richardson B, Price A, Wagner M, et al. Investigation of female survival benefit in metastatic melanoma. *Br J Cancer*. 1999;80:2025-33.
- Rogers LC, Armstrong DG, Boulton AJ, et al. Malignant melanoma misdiagnosed as a diabetic foot ulcer. *Diabetes care*. 2007;30:444-5.
- Gregson C, Allain T. Amelanotic malignant melanoma disguised as a diabetic foot ulcer. *Diabet Med*. 2004;21:924-7.
- Kong M-F, Jogia R, Jackson S, et al. Malignant melanoma presenting as a foot ulcer. *Lancet*. 2005;366:1750.
- Tadiparthi S, Panchani S, Iqbal A. Biopsy for malignant melanoma—are we following the guidelines? *Ann R Coll Surg Engl*. 2008;90:322-5.
- Fortin PT, Freiberg AA, Rees R, et al. Malignant melanoma of the foot and ankle. *J Bone Joint Surg Am*. 1995;77:1396-403.
- Siegel R, Naishadham d, Jemal a. Cancer statistics, 2012. *CA Cancer j Clin*. 2013;63:11-30.
- Sevencan NO, Cakmakliogullari EK, Ozkan AE, et al. An unusual location of squamous cell carcinoma and a rare cutaneous infection caused by *serratia marcescens* on the tumoral tissue: A case report. *Medicine (Baltimore)* 2018;97:e12596.
- Cummins DL, Cummins JM, Pantle H, et al. Cutaneous malignant melanoma. *Mayo Clin Proc*. 2006;81:500-7.
- John KJ, Hayes Jr D, Green DR, et al. Malignant melanoma of the foot and ankle. *Clin Podiatr Med Surg*. 2000;17:347-60.
- Adams BE, Peng PD, Williams ML. Melanoma of the Foot Is Associated With Advanced Disease and Poorer Survival. *The J Foot Ankle Surg*. 2018;57(1):52-5.
- Balch C, Soong S, Shaw H, et al. Changing trends in the clinical and pathologic features of melanoma. *Cutaneous Melanoma*. 1992:40-5.
- Soudry E, Gutman H, Feinmesser M, et al. "Gloves and Socks" Melanoma: Does Histology Make a Difference? *Dermatol Surg*. 2008;34:1372-8.
- Minagawa A, Omodaka T, Okuyama R. Melanomas and mechanical stress points on the plantar surface of the foot. *N Engl J Med*. 2016;374:2404-6.