ARTICLE

MELANOMA FOCUS

Acral melanoma

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Introduction to Melanoma

Melanoma is in the top 5 most commonly diagnosed cancers in the UK*, ** and is the UK's most rapidly increasing type of cancer, with around 16,700 new cases every year* Sadly, figures indicate that 2,333 people die each year in the UK from malignant melanoma*

According to most recent statistics, between 2016 to 2018 there were 16,744 new cases diagnosed each year in the UK. In the last 10 years there has been an increase in cases of around 32% and they are predicted to have risen to 32 cases in 100,000 by 2035 (CRUK).

While the majority of patients will be cured with surgery 20% of cases will go on to develop metastatic disease and, whilst there have been significant strides in treatment over the past 15 years, 70-75% of patients diagnosed with stage IV will die from their disease (Cancer research alliance 2024) Melanoma treatments for metastatic disease have improved significantly with the addition of immunotherapy and targeted therapy along with improvements in radiotherapy treatment. Survival rates are only just beginning to reflect these advancements. Early diagnosis is, therefore, vitally important to ensure a good outcome.

Five Year Survival Rate by Melanoma Stage:		
Localised melanoma:	Stage 0, Stage I, & Stage II:	98.4%
Regional melanoma:	Stage III:	63.6%
Metastic melanoma:	Stage IV:	22.5%

Cancer research alliance 2024

Melanoma can affect all age groups and is the second most common cancer in people aged between 15 -34 . Studies suggest that more years of life and lifetime earnings are lost to melanoma than any other cancer *(Cancer research alliance).*

Types of melanoma - Whilst melanoma is most commonly found on the skin (cutaneous), there are sub types of melanoma which can arise from;

- The mucus membranes in the vulval, anal, nasal areas and, oral cavities (mucosal melanoma)
- The palms of the hands and soles of feet (Acral lentiginous melanoma)
- The eye (Ocular melanoma)

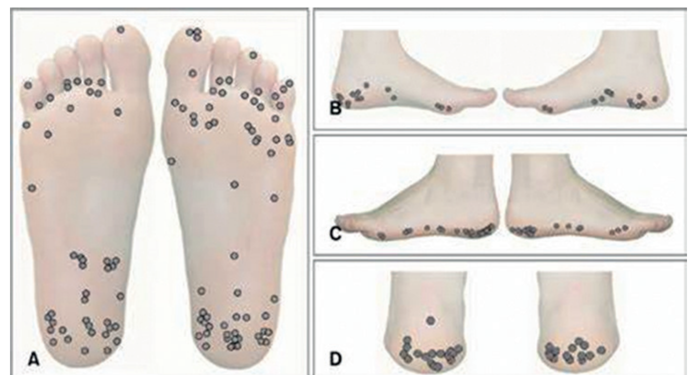
These subtypes generally behave differently to cutaneous melanoma.

Pathophysiology

Malignant melanoma is a tumour which arises from the cutaneous melanocytes which are present in the basal layer of the epidermis of the skin. These skin cells produce the protective pigment called melanin. Melanin gives a tan or brown colour to the skin and helps protect the deeper layers from the harmful effects of the UV light.

Acral lentiginous melanoma (acral melanoma)

Acral melanoma, sometimes called acral lentiginous melanoma, is a rare subtype of melanoma and accounts for 5 -10 % of all melanomas. It usually presents on the palms of the hands, soles of feet, or under finger or toenails. Cutaneous melanoma predominantly affects people with lighter skin tones, however, acral melanoma is just as common in people with darker skin tones, accounting for 40-60% of melanomas in people with African and Asian origin. Unlike cutaneous melanoma, it is not believed to be caused by sun exposure and therefore occurs in areas not typically exposed to the sun. Whilst the cause of this type of melanoma is uncertain, there is emerging evidence that it most commonly appears on the points of the foot that receive most pressure which may be a factor in its development. *(Al-Hassani, F., Chang, C., & Peach, H. (2017).*



Pressure points on the feet where acral melanoma most commonly arises.

Diagnosis

Acral melanoma has a poor prognosis when compared to cutaneous melanoma. This is due in part to late diagnosis. It may develop on an area which the patient doesn't view regularly. There is also a lack of knowledge about acral melanoma amongst the general public and health care professionals *(Criscito, M. C., & Stein, J. A. (2017).*

Acral melanomas are difficult to diagnose as they often mimic benign lesions particularly if they are non-pigmented *Soon et al (2003)*

Differential for lesions on the extremities

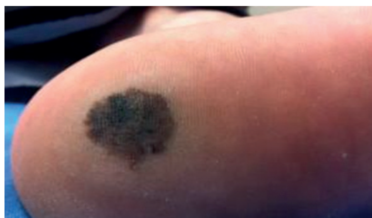
- Verruca
- Corn
- Callus
- Eccrine poroma
- Pyogenic granuloma
- Mal perforins from peripheral neuropathy
- Gangrene
- Superficial fungal infections
- Residual foreign body
- Subungual haematoma

*Cancer Research UK stats – Date ranges 2013 -2018.
** Cancer registration statistics, England: final release, 2018.Published 29 May 2020.

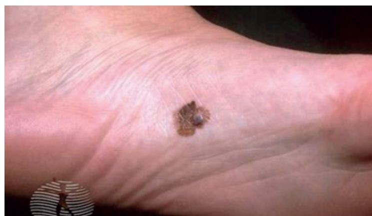
Many of these conditions can be difficult to distinguish from melanoma.

In initial stages, acral lentiginous melanoma (ALM) presents as a new light to dark brown pigmented macule on the palm of the hand, sole of the foot, or under the nail. ALM more commonly occurs on the feet, possibly due to higher melanocyte density in this area.

Over time they will develop, becoming darker and more expansive they may become raised, ulcerate and bleed. The rate of change can vary enormously, from many months to short number of weeks. It is important to recognise that not all acral melanomas are pigmented.



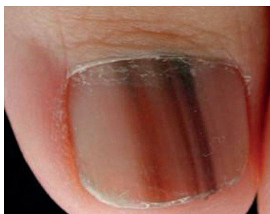
Slowly enlarging pigmented lesion. Present for 3 years.

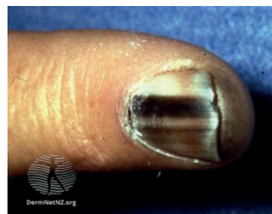


Acral melanoma entering into the vertical growth phase.

Melanomas involving the nail:

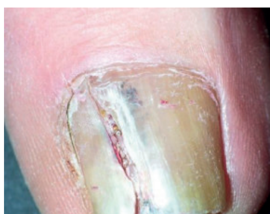
- **Subungual melanoma** arises from the nail matrix and sometimes presents as a longitudinal brown or black band in the fingernail or toenail. It may be associated with nail dystrophy. Involvement of the proximal nail fold (Hutchinson's sign) this is considered a clue to the diagnosis.





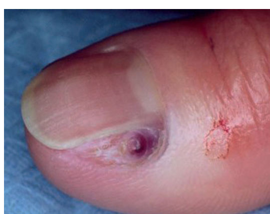
Sub ungual melanoma

- **Ungual melanoma** arises from the nail plate



Amelanotic melanoma of the nail bed.

- **Periungual melanoma** (melanoma originating from the skin beside the nail plate).



Melanoma originating from the skin beside the nail plate..

The ABCDE system is a simple checklist which can be used as a guide for assessing skin lesions, however, whilst this acronym works well for superficial spreading melanomas, it may not pick up less common melanomas such as nodular or amelanotic melanomas.

The most important things to look out for are a new or changing mole or lesion.

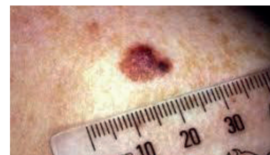
A **Asymmetry**
the two halves of the area differ in their shape.

B **Border**
the edges of the area may be irregular, uneven or blurred rather than smooth or well defined.

C **Colour**
The lesion may have changed colour, become darker or developed different shades of black, brown, red, white and pink .

D **Diameter**
melanomas are often, but not always >6 mm. in diameter, most normal moles are smaller than this.

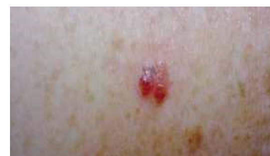
E **Evolving** - Changes in size, shape, colour or elevation. Itching or bleeding



Cutaneous melanoma.

In addition to these signs Acral melanoma may have:

- Nodular or flat darkly pigmented appearance
- Have no pigmentation (approximately 50% of acral melanomas are amelanotic
- A Linear pigmentation under nail bed
- Pigment extending from under the nail to beyond the nail fold
- A mass which is lifting the nail plate (oncholysis)
- Thinning or cracking of the nail plate
- Pain if there is involvement of the bone



Amelanotic melanoma.

Treatment

The first line in treatment for acral melanoma is surgery. Melanoma should be confirmed with excision biopsy, if positive, the scar should be excised with a wide (2cm) margin. This often leads to significant deformity of the foot. The vast majority of ACM on the hands are subungual. For melanoma involving the nail, amputation of the digit is usually required.

Following the initial biopsy, a sentinel lymph node biopsy will be performed. This is a procedure to identify and remove the lymph node that drains the primary site. The node will then be examined for any evidence of tumour spread. This is an

important staging procedure but does not improve outcome NICE (2022).

Following initial surgery, the tumour will be staged according to specific criteria, essentially staging is dependent on the thickness of the primary, whether it is ulcerated microscopically (Stage1 or 2) and whether the tumour has spread to the lymph nodes (Stage 3).

Depending on the stage, scans may be performed to assess for any spread of the disease into the internal organs including the brain (stage 4).

Systemic treatment

For stage 4 melanoma and stage 3 which is too extensive for surgery, the treatment has improved significantly with the advent of immunotherapy and /or targeted therapy. Some patients are now being cured with these treatments.

Unfortunately, acral melanoma is generally not suitable for targeted therapies and responds less well to immunotherapy. It is therefore vital that early diagnosis of these tumours improves.

Conclusion

To improve the outcome of patients with acral melanoma, it is vital that they are diagnosed at an early stage. Whilst in the advanced setting, the disease responds less well to treatment, lesions diagnosed at an early stage have a similar prognosis to cutaneous melanoma.

Podiatrists can play a pivotal role in recognising early signs of acral melanoma and are in an advantageous position to expedite referral for biopsy if there are any suspicions.

They can also play and important part in the rehabilitation process following surgery, which is often extensive and debilitating.

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Standards of education and training (SETs)

In 2024 the HCPC will begin work on updating their standards of education and training. The Spring will mark the start of their pre-consultation engagement work on this important area of regulation.

Like all HCPC standards, these are kept under continual review, to look at how they are working and check whether they continue to reflect current practice.

The HCPC plan to undertake a broader formal review and consultation of the standards next year, and look at the changing nature of practice and how education programmes are delivered and assessed.

There are currently training standards for podiatric surgery and training standards in prescription only medicines – Chiropodists / Podiatrists.

To read the relevant standards please visit the HCPC website: www.hcpc-uk.org/standards/standards-relevant-to-education-and-training

Reported scam calls

The HCPC are aware that some registrants have recently received automated calls regarding supposed HCPC investigations, and have been asked to contact a specified number.

The HCPC has confirmed that this is a 'vishing' scam and that they never use automated phone calls or voice messages in relation to registration services or fitness to practise.

There is no known data breach, and there has only been a small number of reported cases.

If you receive an email or an SMS text message that you think is not genuine, then please do not reply to this message. Instead, contact our registration team who will be able to assist

registration@hcpc-uk.org

Closure of COVID-19 Temporary register

In response to the global pandemic a temporary register of former registrants was created to boost the country's response to the virus. The HCPC was informed by the Department of Health and Social Care (DHSC) that the COVID-19 Temporary Register must close on the 31st March 2024. The Government had previously decided that the Temporary Register would remain open until September 2024. This register has now closed and any professionals who have not applied to join the main Register must now cease practising.