

Melanoma: Why early detection is harder than it seems

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Melanoma, while less common than other skin cancers, accounts for the majority of skin cancer deaths. Early detection is paramount for improving patient outcomes, yet primary care physicians (PCPs) often face challenges in identifying suspicious lesions amidst a busy clinic schedule. Understanding the key indicators and risk profiles can significantly enhance diagnostic accuracy.

KEY TAKEAWAYS

- **The Pivot:** Melanoma incidence continues to rise, making early detection in primary care more critical than ever.
- **The Data:** The five-year survival rate for localized melanoma is over 99%, dropping significantly once regional or distant metastases occur.
- **The Action:** PCPs should routinely incorporate skin checks for high-risk patients and maintain a low threshold for referral of suspicious lesions.

Melanoma originates from melanocytes, the pigment-producing cells in the skin. While often appearing as a new mole or a change in an existing one, its presentation can be highly variable, making it a diagnostic challenge. The disease's aggressive nature means that even small delays in diagnosis can have profound implications for prognosis. General practitioners are often the first point of contact for patients with skin concerns, placing them in a position that is essential for early detection.

Risk factors for melanoma are well-established and include excessive exposure to ultraviolet (UV) radiation, a history of sunburns, numerous moles (especially atypical nevi), fair skin, a family history of melanoma, and a compromised immune system. Patients with a personal history of melanoma are also at significantly increased risk of developing new primary melanomas. A thorough patient history, including sun exposure habits and family history, is an essential part of any skin assessment.

The ABCDEs and Beyond

The classic ABCDE mnemonic remains a cornerstone for melanoma screening in primary care: Asymmetry, irregular Border, varied Color, Diameter greater than 6 mm, and Evolving (changing over time). This tool helps PCPs quickly assess suspicious lesions. But, not all melanomas adhere strictly to these criteria, and some can be amelanotic, lacking the characteristic dark pigmentation.

Beyond the ABCDEs, clinicians should also consider the 'ugly duckling' sign. This concept posits that melanomas often look different from the patient's other moles. If a lesion stands out as an outlier, it warrants closer inspection, even if it

does not perfectly fit the ABCDE criteria. This comparative approach can be particularly useful for patients with many moles, where distinguishing a single suspicious lesion can be challenging. For a comprehensive guide to dermatological conditions, the Oxford Handbook of Medical Dermatology offers a step-by-step approach to diagnosis and management.

Subtle Clues and High-Risk Sites

Melanoma can appear in unexpected locations, including areas not typically exposed to the sun. Acral lentiginous melanoma, for instance, occurs on the palms, soles, and under the nails, and is more common in individuals with darker skin tones. Mucosal melanoma can affect the mouth, nasal passages, or genital area, often presenting as a dark patch that may be mistaken for a benign lesion. These less common presentations highlight the need for a comprehensive skin examination, especially in high-risk individuals.

Nodular melanoma, another aggressive subtype, often presents as a rapidly growing, firm, dome-shaped lesion that may be uniform in color or amelanotic. These lesions can grow vertically quickly, increasing their metastatic potential. They may not exhibit the typical asymmetry or irregular borders of superficial spreading melanoma, making them harder to identify using only the ABCDE criteria. Any rapidly changing or symptomatic lesion (itching, bleeding, tenderness) should raise immediate concern.

When to Refer

The decision to refer a patient to a dermatologist for further evaluation should be based on a combination of clinical suspicion, patient risk factors, and the characteristics of the lesion. A low threshold for referral is prudent, especially when any of the ABCDE criteria are met, or if the 'ugly duckling' sign is present. Dermoscopy, a non-invasive technique that allows for magnified visualization of skin lesions, can significantly improve diagnostic accuracy and is increasingly used in primary care settings, though it requires specific training.

Patients with a strong family history of melanoma or multiple atypical nevi may benefit from regular full-body skin examinations by a dermatologist. Educating patients on self-skin examination and the importance of sun protection remains a critical role for PCPs. Empowering patients to recognize changes in their own skin can lead to earlier presentation and diagnosis. The goal is to catch melanoma when it is still in situ or thinly invasive, before it has the opportunity to spread.

CLINICAL IMPLICATIONS

The rising incidence of melanoma means primary care physicians are on the front lines of detection. Relying solely on the classic ABCDEs is insufficient; clinicians must also consider the 'ugly duckling' sign and be vigilant for less common presentations like nodular or acral melanomas. A high index of suspicion, particularly for lesions that are evolving or symptomatic, is non-negotiable.

Referral pathways need to be efficient. When a suspicious lesion is identified, prompt dermatological assessment is essential for patient survival. Delays in specialist evaluation can translate directly into poorer patient outcomes, given melanoma's aggressive potential. PCPs should feel empowered to refer without hesitation when in doubt.

Patient education remains a powerful, yet often underutilized, tool. GPs should consistently counsel patients on sun protection strategies, the importance of regular self-skin checks, and what to look for. This proactive approach can significantly contribute to earlier diagnosis and ultimately, save lives.

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