What to Know About the Different Types of Cutaneous Melanoma

Within cutaneous melanoma, there are several types with different features.

July 10, 2024 By Melanoma Research Alliance

Cutaneous melanoma is the most common form of melanoma, accounting for roughly 90% of all diagnoses. Cutaneous melanoma typically develops on skin that receives UV exposure. Other types of melanoma include acral, uveal, and mucosal melanoma – these are known as rare melanoma subtypes and are not believed to be caused by UV exposure.

Within cutaneous melanoma, there are several types with different features. These types include; superficial spreading melanoma, amelanotic melanoma, desmoplastic melanoma, and nodular or polypoid melanoma. To learn more about these different types of cutaneous melanoma, we talked to Iwei Yeh, MD, PhD, a practicing dermatopathologist and Professor of Dermatology and Pathology at the University of California, San Francisco.

Superficial Spreading Melanoma

Dr. Yeh explained that superficial spreading melanoma is the "classic" type of cutaneous melanoma and the most common, making up about 70% of cases. Superficial spreading melanoma grows across the outer layer of skin and then invades deeper layers. It starts out flat and pigmented, stays flat, spreads out, and then may develop irregular patterns, colors, and borders. If left untreated, it may eventually become palpable and show ulceration.

This type of melanoma can be recognized by the classic ABCDE signs. Look for moles that are:

- asymmetrical
- have an irregular border
- show changes in color
- have a diameter larger than the size of a pencil eraser, or
- have evolved in size or thickness

It is important to recognize that not all types of cutaneous melanomas can be identified with the

ABCDE criteria. Dr. Yeh stated that the other, less common, types of cutaneous melanoma are sometimes initially thought to be other types of skin lesions such as squamous cell carcinoma, basal cell carcinoma, or other non-melanoma lesions and are only later found to be melanoma when surgically removed tissue is analyzed further by a pathologist.

Nodular or Polypoid Melanoma

Nodular melanoma makes up about 15-30% of new melanoma cases each year and is the second most common type after superficial spreading melanoma. It is usually rounded or mushroom-shaped rather than flat and may be mistaken for a skin tag, blood blisters, or acne. The nodule is often black or brown, and the borders are hard to distinguish. Nodular melanoma grows quickly, invades deeper skin layers soon after developing, and doesn't always conform to the ABCDE/"ugly duckling" guide. This type of melanoma may be more aggressive due to its fast growing nature, but this has not been definitively confirmed through studies.

Desmoplastic Melanoma

Desmoplastic melanoma makes up about 4% of all skin melanomas. It may be unpigmented, and the borders are often hard to distinguish. It can start out as a subtle lesion, like a firm plaque, but may be deep when diagnosed. Desmoplastic melanoma is more common on the head and neck of older people, can grow aggressively in areas of heavy sun exposure, and is often diagnosed at later stages. Because it may be larger than other melanomas, a more extensive surgery may be needed to completely remove it.

Amelanotic Melanoma

Amelanotic melanoma is rare and does not have much pigment and so it is not brown, but rather may be pink or light brown. Due to this, patients may not suspect that it is a concern. It may seem like a pink or red scar or wound that doesn't heal and instead gets worse. The borders are typically hard to distinguish, and it may bleed. Changes in size, edges, and symmetry may be present. The lesion may look distinct from nearby skin and grow quickly. It is harder to diagnose than other types of melanoma, and so it is often diagnosed at a later stage.

Treatments

Treatment selection for cutaneous melanoma is personalized based on the stage of cancer and other characteristics. Treatments may include the following:

- Surgery is the main treatment for all types of cutaneous melanoma. Prior to removing the lesion, the doctor may look for evidence of local spread by feeling for lymph node involvement.

Depending on the thickness or depth of the lesion, a sentinel lymph node biopsy may also be performed. Biopsy of sentinel lymph nodes, which are the lymph nodes the lesion drains into and is likely to first spread into, is done to determine spread and risk of recurrence elsewhere in the body.

- For patients with high-risk or metastatic disease, additional treatment beyond surgery may be recommended:
  - Immunotherapy, which is treatment that enhances the ability of the immune system to detect and kill cancer cells, is used in more advanced stages of melanoma or more invasive types such as nodular melanoma.
  - Targeted inhibitor therapies are available for patients whose melanoma contains a mutant form of the BRAF gene. BRAF mutations are more common in superficial spreading melanoma and less common in desmoplastic melanoma.
  - Enrollment in a clinical trial may be another treatment option. There are many approved treatments for melanoma, but many others are being studied in clinical trials. Patients should discuss clinical trial opportunities with their clinicians.

It is important to get melanoma diagnosed and treated as soon as possible, and to know all of your available options.

Dr. Yeh stated that, “as you get older, be aware of changing lesions on your skin, and be willing to ask about it.” Some types of melanoma can be hard to recognize and diagnose so make sure you are seen by the right skin cancer specialists. Dr. Yeh also emphasized the importance of sun avoidance and protection to prevent melanoma and other skin cancers. Sun avoidance and protection year-round, especially for children and continuing throughout adulthood, is critically important.

This blog was published by the Melanoma Research Alliance on June 21, 2024. It is republished with permission.
