

Asymptomatic, Evolving Lesion on the Upper Arm

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Figure 1.

A 63-year-old woman presented with an asymptomatic lesion on her left posterior upper arm that had been present for 18 years. Although the lesion was small initially, the patient noticed slow evolution over time. She had applied hydrocortisone to the area and thought there was some improvement because a whitish area developed within the lesion. She had no major medical history, including no

personal or family history of skin disease. She was not taking prescription medications.

On physical examination, there was an irregular 4.2-cm by 3.5-cm pink plaque with areas of irregular pigmentation, primarily at the periphery. The lesion was located over the lateral aspect of the distal left triceps. A smooth area of depigmentation was noted along the inferior aspect of the lesion (*Figure 1*). There was no lymphadenopathy. The remainder of the physical examination was unremarkable.

Question

Based on the patient's history and physical examination findings, which one of the following is the most likely diagnosis?

- A. Lentigo maligna.
- B. Solar lentigo.
- C. Superficial basal cell carcinoma.
- D. Superficial spreading melanoma.

See the following page for discussion.

Photo Quiz

Discussion

The answer is D: superficial spreading melanoma. Superficial spreading melanoma is the most common subtype of melanoma, accounting for about 70% of all melanomas.¹ It usually presents in the fourth to fifth decade of life but can affect adults of all ages.^{1,2} It most often occurs on the upper back in men, and on the upper back and lower legs in women.³ This malignancy of melanocytes can arise de novo or from a preexisting nevus,² and does not have a predilection for sun-damaged skin.² It typically has a slow radial growth phase before becoming invasive.⁴ A new flat gray or white area in a previously pigmented lesion represents regression, an immunologic reaction against the tumor that can partially or completely destroy the primary tumor but may be associated with a poorer prognosis.^{1,2}

Histologically, the radial growth phase is characterized by a “buckshot” scatter of melanocytes throughout the epidermis. As a result, the borders tend to be more clearly defined than those of lentiginous types of melanoma.² Malignant melanoma should be confirmed with a biopsy.³ The National Comprehensive Cancer Network guideline recommends elliptical, punch, or saucerization biopsy with narrow (1- to 3-mm) margins as the preferred methods for suspected melanoma.⁵ Avoiding wider margins allows for accurate lymphatic mapping, if needed later.

Lentigo maligna is the in-situ form of lentigo maligna melanoma. It is characterized by an extended radial phase of five to 20 years before invasive vertical growth develops.² It is estimated that only 3% to 5% of lentigo maligna lesions become invasive. The risk of invasion is directly proportional to the size of the lesion.⁴ Lentigo maligna is more common in older persons with heavily sun-damaged skin. It often occurs on the head and neck.²

Solar lentiginos can be numerous on sun-exposed skin. They appear as uniform tan or brown macules ranging in size from several millimeters to several centimeters with distinct borders. Histologically, there are an increased number of melanocytes within the basal layer, which is induced by sun exposure. They are more common as persons get older, and most often appear on the face, arms, dorsa of the hands, and upper trunk. Lentiginos have no malignant potential.³

Summary Table

Condition	Characteristics
Lentigo maligna	In-situ form of lentigo maligna melanoma; characterized by an extended radial phase (5 to 20 years) before invasive vertical growth develops; most common in older persons with heavily sun-damaged skin; often occurs on the head and neck
Solar lentigo	Uniform tan or brown macules ranging in size from several millimeters to several centimeters with distinct borders; induced by sun exposure; more common as persons age; most often appears on the face, arms, dorsa of the hands, and upper trunk
Superficial basal cell carcinoma	Red, well-demarcated, dry, slightly scaly patch that may mimic eczema or psoriasis; usually occurs in light-skinned persons; most common on the trunk but also commonly affects the head, neck, and distal extremities
Superficial spreading melanoma	Slow radial growth phase before becoming invasive; affects adults of all ages; most common on the upper back in men, and upper back and lower legs in women

Superficial basal cell carcinoma most often occurs in light-skinned persons, usually appearing on the trunk, but it also commonly affects the head, neck, and distal extremities. This subtype accounts for about 15% of basal cell carcinomas. It presents as a red, well-demarcated, dry, slightly scaly patch that may mimic eczema or psoriasis. The patch enlarges very slowly and may grow to 10 to 15 cm in diameter.²

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REFERENCES

1. Fleischer AB, Feldman SR, Katz AS, Clayton BD. Melanoma. In: Fleischer AB, et al., eds. *20 Common Problems in Dermatology*. New York, NY: McGraw-Hill; 2000:201-217.
2. Melanoma (malignant melanoma). In: James WD, Berger TG, Elston DM, eds. *Andrews' Diseases of the Skin: Clinical Dermatology*. 10th ed. Philadelphia, Pa.: Elsevier; 2006:647,694-699.
3. Malignant melanoma. In: Marks JG, Miller JJ, eds. *Lookingbill and Marks' Principles of Dermatology*. 4th ed. Philadelphia, Pa.: Elsevier; 2006.
4. Shenenberger DW. Cutaneous malignant melanoma: a primary care perspective. *Am Fam Physician*. 2012;85(2):161-168.
5. Coit DG, Andtbacka R, Bichakjian CK, et al.; NCCN Melanoma Panel. Melanoma. *J Natl Compr Canc Netw*. 2009;7(3):250-275. ■