

Kaplan USMLE Step 2 prep: Man has unusual mole; what's next?

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If you're preparing for the United States Medical Licensing Examination® (USMLE®) Step 2 exam, you might want to know which questions are most often missed by test-prep takers. Check out this example from Kaplan Medical, and read an expert explanation of the answer. Also check out all posts in this series.

This month's stumper

A 50-year-old man comes to the physician because of an unusual appearing mole on his upper back. He says that his wife has noted a recent change in its color and shape. The lesion measures 0.7 cm and has ill-defined margins and irregular pigmentation. The patient is otherwise healthy and takes no medication.

Which of the following is the most appropriate next step in management?

- A. Follow-up examination in six months.
- B. Topical application of Podophyllum resin.
- C. Cryotherapy with liquid nitrogen.
- D. Shave biopsy.
- E. Incisional biopsy.
- F. Excisional biopsy.

The correct answer is F.

Kaplan Medical explains why

The gross appearance of the lesion, along with its recent changes over a presumably short period, is highly suggestive of malignant melanoma. The proportion of melanomas that arise from pre-existing benign nevocellular nevi is not known. In the dysplastic nevus syndrome, however, a dysplastic nevus-melanoma sequence is well established. Nevertheless, an excisional biopsy should be carried out for any pigmented skin lesion that shows one or more of the following features: asymmetric or fuzzy border, irregular or variegated color, and diameter greater than 0.6 cm.

According to the American Cancer Society, the mnemonic ABCD may serve to recall the most important suspicious signs: Asymmetry, Border irregularity, Color variegation, and Diameter >0.6 cm. Bleeding and ulceration are malignant signs, albeit far less frequent. Melanoma is the most common cause of death due to skin malignancies. Physicians can play a crucial role in prevention by referring patients who have moles with such suspicious features to dermatologists. The initial approach to a suspicious mole or clinically obvious melanoma consists of total excision (excisional biopsy) with a small margin. If a diagnosis of melanoma is confirmed pathologically, wider margins are excised on a second operation.

Why the other answers are wrong

Choice A: Follow-up examination in six months would result in a dangerous delay in diagnosis and treatment. Metastatic disease may result from this delay.

Choices B and C: Topical application of Podophyllum resin and cryotherapy with liquid nitrogen are treatments used for genital warts, as well as for other common benign lesions, such as seborrheic keratosis. These methods should never be used on pigmented lesions.

Choice D: Shave biopsy is applicable to many types of superficial skin lesions, including basal cell carcinomas, but is inappropriate for melanomas. Proper diagnosis and evaluation of depth of invasion in melanomas can be achieved only on full-thickness biopsies.

Choice E: Incisional biopsy (i.e., partial sampling) is not appropriate unless the lesion is too extensive (such as giant congenital nevi or lentigo maligna). There is no evidence for the belief that incisional biopsy facilitates cancer spread.

For more prep questions on USMLE Steps 1, 2 and 3, view other posts in this series.

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