

Kaplan USMLE Step 3 prep: Woman has growing lesion on thumb

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Staff News Writer

If you're preparing for the United States Medical Licensing Examination[®] (USMLE[®]) Step 3 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.

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This month's stumper

A 35-year-old elementary-school art teacher presents to the office because she is worried about a growing lesion on her left thumb that has been present for the last 3–4 weeks. She recalls working with sharp knives and accidentally stabbing the thumb around the same time she noticed the lesion. She tells you that initially the lesion looked like a small "pimple" that grew in size, bleeds when irritated and has rough surfaces.

She describes a "pulsing," tender sensation. Physical examination shows a polypoid, soft, red, 1.2-by-1.0-cm mass that is constricted by a collarette at the base of the lesion and is located on the lateral nail fold of the left thumb. On palpation, no pulse is appreciated over the lesion. The remainder of the cutaneous examination is unremarkable.

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

- A.** Check the patient's HIV status because this is most likely molluscum contagiosum.
- B.** Shave and electrodesiccate the base of the lesion and send the specimen to pathology.

- C. Shave the lesion off and throw it away because it is a benign lesion.
- D. Tell the patient that this is an acquired hemangioma and will involute on its own.
- E. Tell the patient that this is a fungal infection, and you need to treat it with oral antifungal agents.

The correct answer is B.

Kaplan Medical explains why

A pyogenic granuloma is a result of exuberant granulation tissue following minor trauma (usually from a sharp object) or infection of the skin. It presents as an intensely red, sometimes ulcerated, pedunculated mass that bleeds easily on provocation. Treatment usually involves removal of the mass by either shave and electrodesiccation or complete excision. Clinically, it can resemble amelanotic melanoma; therefore, always submit the specimen for histologic confirmation.

Why the other answers are wrong

Choice A: Kaposi sarcoma (KS) is incorrect because HIV-associated lesions of KS are generally asymptomatic and frequently seen on the soles of feet, the hard palate, and the tip of the nose. Other common sites include the face, trunk, and penis. In this setting it occurs predominantly among homosexual men. It is associated with an increased number of sexual partners, a prior history of oropharyngeal gonorrhea, and increased contact with a sex partner's feces through oral-anal contact.

Choice C: Shaving the lesion off and throwing it away because it is benign is never correct. Histologic confirmation is necessary for any abnormal-appearing skin lesion to rule out ominous cancer.

Choice D: Acquired hemangiomas, also known as cherry angiomas, is incorrect because these lesions are small, bright-red papules composed of ecstatic vessels. They generally arise in middle age, usually on the abdomen. They tend not to grow rapidly in size and do not involute spontaneously.

Choice E: Fungal infection is incorrect because an infection of the nail tends to result in dystrophic, thickened, discolored nail plates with generalized erythema and scaling of the proximal nail fold.

Tips to remember

A pyogenic granuloma is a result of exuberant granulation tissue following minor trauma. Biopsy must be done for histologic confirmation for differentiation from amelanotic melanoma.

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