

Kaplan USMLE Step 2 prep: Diagnosis of a breast lump

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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 27-year-old immigrant from El Salvador has a 14 x 12 x 9-cm mass in her left breast. It has been present for seven years and has slowly grown to its present size. Her grandmother has breast cancer and her father has prostate cancer. Physical examination shows that the mass is firm, nontender, rubbery and completely movable, and it is not attached to the overlying skin or the chest wall. There are no palpable axillary nodes or skin ulceration.

Which of the following is the most likely diagnosis?

- A. Chronic cystic mastitis
- B. Cystosarcoma phyllodes
- C. Inflammatory breast cancer
- D. Intraductal papilloma
- E. Mammary duct ectasia

The correct answer is B.

Kaplan Medical explains why

Cystosarcoma phyllodes occurs in young women and grows to a huge size over many years, and yet spares the skin, the nodes and the underlying chest wall. There is no particular connection with Central America, but often these tumors are seen in immigrants of limited financial circumstances who have had no access to medical care in their own countries.

Why you shouldn't choose the other answers

Read these explanations to understand the important rationale for each answer.

Choice A: Chronic cystic mastitis also known as fibrocystic changes of the breast, is seen in women of reproductive age who complain of tender and lumpy breasts preceding the menstrual cycle. Large cysts can develop in this disease, but not to the huge size described in the vignette.

Choice C: Inflammatory breast cancer presents most often in older women complaining of swollen, edematous, erythematous breast with or without ulceration. Obstruction of lymphatic vessels accounts for the edematous appearance of the breast.

Choice D: Intraductal papilloma is the most common cause of bloody nipple discharge. These tumors are tiny, just a few millimeters in diameter, and are located in the ductal lumen.

Choice E: Mammary duct ectasia is a benign process due to subacute inflammation of the ductal system. Patients present with nipple discharge (sticky and of various colors), noncyclic breast pain, nipple retraction, and/or subareolar mass.

One tip to remember

Cystosarcoma phyllodes is a slow-growing and usually benign (90%) tumor that may reach very large and impressive sizes in premenopausal patients. The tumor is freely mobile, usually 4-5 cm, smooth, and well-circumscribed. All tumors should be resected after diagnosis has been established.

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

The AMA and Kaplan have teamed up to support you in reaching your goal of passing the USMLE® or COMLEX-USA®. If you're looking for additional resources, Kaplan provides free access to tools for pre-clinical studies, including Kaplan's Lecture Notes series, Integrated Vignettes, Shelf Prep and more.