Use Algorithm to Evaluate Palpable Breast Mass

BY ROBERT FINN

SAN FRANCISCO — Studies have shown that over a 10-year period, about 16% of women aged 40-69 years bring a concern about their breasts to primary care physicians. In most cases, palpable breast masses turn out to be benign cysts or fibroadenomas, but breast cancer is found in 11% of women complaining of a breast lump and 4% of women with any breast complaint.

A proper evaluation of a palpable breast mass is important not only for quality care but also because a delayed cancer diagnosis due to a negative clinical exam or a negative mammogram is a common cause of malpractice awards, Dr. Leah Karliner said at a meeting on women's health sponsored by the University of California, San Francisco.

The classic characteristics of a malignant mass are well known. Cancer is more likely if there is a single lesion, if it's hard and immovable, if it has irregular borders, and if it's 2 cm or more in diameter.

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"Unfortunately, cancers are often soft and cystic, movable, regular, [and] small," said Dr. Karliner of the division of general internal medicine at the university. Also, "benign lesions can be single, like cancers are supposed to be."

With clinical characteristics so unreliable, Dr. Karliner recommended the following algorithm when evaluating a woman with a palpable mass. Decisions are fairly simple for women above the age of 30-35 years. All such women who come in complaining of a mass should receive a diagnostic mammogram, both to evaluate the mass and to search for occult malignancies elsewhere in the same breast. According to one study of 41,000 women with self-reported breast lumps, diagnostic mammography alone has a sensitivity of 87.3% and a specificity of 84.5%.

That means diagnostic mammography misses 10%-20% of breast cancers, but the addition of ultrasound to the mammogram increases the negative predictive value to 97%.

The so-called "triple diagnosis," consisting of a physical exam, mammography, and skilled fine-needle aspiration (FNA) biopsy misses few cancers, Dr. Karliner said. If all three tests are negative, it's safe to schedule follow-up exams every 3-6 months for a year. If all three are positive, the patient should be referred for definitive treatment. And if any one test is suggestive of malignancy, the patient should have a core or excisional biopsy.

The algorithm for younger women presenting with a self-reported lump has a more complex decision tree, with the evaluation depending on whether the physician can feel the lump and whether the woman is at high risk.

If the physician can't feel a dominant mass on physical exam and the woman is of average risk, she should return in 2-3 months for a reexamination, and if the lump is then palpable she should undergo a further work-up.

If the physician can't feel a dominant mass and the woman is at high risk, with first-degree relatives who had cancer at a young age, she should be referred to a breast surgeon or clinic for a further work-up or to be followed closely.

If the physician can feel a palpable lump in a younger woman, and if she's at average risk and the exam is not concerning, she should return for a reexamination 3-10 days after her next menses. If the lump is still palpable, she'll need a further work-up. "Even in young women, you don't just ignore it," Dr. Karliner said. If that younger woman with a palpable lump is at high risk, or if the exam is concerning, she should be referred for ultrasound or FNA biopsy.

In these younger women, diagnostic mammography is not very useful, and should be ordered only if other results suggest malignancy, Dr. Karliner said.

Dr. Karliner stated that she had no conflicts of interest. ■