Ask the Doctor March 2016: New outline: 2/27

Introduction:

Last month's issue of "Ask the Doctor" discussed the current assault against screening mammography. The article reviewed proposed guidelines from a government task force (U.S. Preventive Service Task Force or USPSTF) recommending that women start mammographic screening at age fifty, repeat every other year, and stop at seventy-four.

Their recommendations are largely base on a flawed Canadian study, which came to the conclusion that 22% of breast cancers would simply disappear on their own. The actual reason that there were more breast cancers identified in the mammography arm of the study as opposed to the control arm (i.e. no mammogram) was that more women, who already had suspicious breast lumps on examination, were placed in the mammography arm of the study.

There is every reason to be concerned that these new screening guidelines will provide insurances with an excuse to not cover the cost of mammograms for women in their forties and to only pay for mammograms every other year for women fifty and over. If these guidelines are adopted, which is inevitable unless there is a major pushback from the public, there will be a major increase in the number of cases of delayed diagnosis. This will translate into the need for more aggressive treatment and lower rates of survival.

The irony is that this new movement for less aggressive screening is coming at a time in which we are making major progress in detecting small cancers missed on the screening mammogram. It is well established that mammographic screening using standard technology cuts the rate of breast cancer deaths by 30 percent.
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We now have new technology that can reduce breast cancer mortality by up to 50%. Before reviewing the new technology it is important to understand the role of breast density in breast cancer detection.

The problem is density:

Approximately half of all women who undergo mammographic screening are found to have breasts that are composed primarily of dense tissue. The other 50% of women have breasts that are primarily composed of fatty tissue.

As it turns out, mammograms are extremely effective in detecting small cancers in the 40-60% of women whose breasts are composed primarily of fatty tissue. The mammograms of women with fatty breasts are mostly black. Breast cancers are typically white. Detecting a small cancer in a fatty breast is often so easy that it has been compared to finding a lighted match in a dark room.

Mammograms are so effective in detecting small cancers in women whose breasts are composed primarily of fatty tissue that no other breast imaging is necessary.

On the other hand, mammograms are less effective in detecting small breast cancers in women with dense breasts. Dense breast tissue looks white on mammograms. The white breast cancers can simply blend into the normal white background. Detecting cancers in mammograms that are composed primarily of dense breast tissue has been compared to looking for a snowman in a snowstorm.

Many well-designed scientific studies have concluded that starting yearly screening for women at age 40 reduces breast cancer mortality rates by 30%. I am convinced that we can double the reduction in breast cancer mortality if we were to use the new technologies that are proven to be effective in detecting small cancers missed on the mammogram.

The new Breakthroughs in Early Detection:

3-D vs. 2-D mammograms:

Recent studies have clearly demonstrated that the three-dimensional mammogram is superior to the standard two-dimensional mammogram in the detection of small cancers in women with dense breasts. It also reduces the number of unnecessary breast biopsies (i.e. false positives).

The earliest 3-D mammography machines did expose women to slightly higher doses of radiation than the standard 2-D, but this problem has been solved and some of the newer machines have lower levels of exposure than the standard 2-D machines. The test takes a few seconds longer to perform and thus may be associated with more discomfort. Finally, the cost of 3-D mammograms is typically higher than the cost of a 2-D mammogram. The cost of a 3-D mammogram is not always covered by insurance.

Screening Breast Ultrasounds:

Women with dense breasts also benefit from ultrasound screening. A study published in JAMA 2 years ago looked at approximately 100 women who were diagnosed with breast cancer during a three-year time interval. In summary, one third of breasts cancers were seen only on the mammogram, one third were seen on both the mammogram and the ultrasound. The remaining one third were seen only on the ultrasound.

Of note, most of the cancers that were seen only on the Ultrasound were small with negative lymph nodes. These are the types of cancers we need to identify if we are to improve breast cancer survival statistics.

Screening Breast MRI

Screening breast MRI is the most sensitive screening tool in our arsenal. It is well established that MRI screening of very high-risk women reduces breast cancer

mortality. The initial studies on screening focused on women who carried a BRCA mutation, as was the case with Angelina Jolie.

One of the major downsides of the breast MRI is cost, which can range from 800 to 3,000 dollars. Insurance companies will usually cover the cost of the MRI if a woman has a 20% or greater lifetime risk of developing breast cancer. Most women do not know their lifetime risk of developing breast cancer. As a result, many women who would benefit from MRI screening are not taking advantage of this potentially lifesaving technology.

Next month's Ask the Doctor will focus on risk assessment and screening guidelines for both normal and high-risk women.

Contact us at: www.beawarefoundation.org if you have questions or comments.

Helpful Links:

Danial Kopans M.D.: Chairman department of Radiology Harvard Medical School

http://www.ajronline.org/doi/full/10.2214/ajr.180.1.1800021?view=long&pmid=12490471

Laszlo Tabar M.D. A pioneer in breast imaging and Professor of Radiology at the University of Uppsala in Sweden.

http://www.mammographyed.com/news/newsdetail.aspx?a=8076