



Breast density; an important risk factor for breast cancer

The NCI (National Cancer Institute) has recently issued a statement that breast density is one the biggest risk factors for developing breast cancer. Although there has been long-term speculation that increased breast density is associated with increased risk of breast cancer, it has been only in the past few years that researchers have been able to gain insights into the degree of risk. Recent studies have demonstrated a 5 fold increase in breast cancer risk in women in which breast density involves more that 75% of the mammogram vs. women in which the density is less than 10%. Putting this risk factor in perspective, a 50 year old woman with no risk factors has a 2.5% chance of getting breast cancer in the next ten years, whereas an identical woman, with breast density as the additional risk factor, has a 5% or double the risk of the woman with a fatty breast.

What is breast density? Breasts are composed of two basic types of tissue. Breast that are primarily fatty appear to be mostly black on the mammogram. Cancers typically show up as white dots (i.e. calcium crystals) or as white densities (a combination of cancer cells and the reactive tissues from the bodies defense systems. Cancers in fatty breast are typically easily identified since the white cancer show up in stark contrast to the black background. The second component of breast tissue is the glandular (milk producing) and the supportive tissues which in combination show up white areas on the mammogram. Trying to find a white cancer in this mostly white background is like trying to find a snowman in a snow storm. This is one of the reasons that mammography is not as sensitive (i.e. accurate in identifying) early cancers in women with dense breasts.

The issue of difficulty in diagnosing breast cancers in dense breast does not provide an explanation as to how or why increased density is associated with an increased risk for breast cancer. There is one twin study that suggests that breast density pattern is inherited. Even though there is not a lot a woman can do about it if she has dense breast, there are here are a few issues that every woman should be aware of.

Each woman should ask her physician the status of her breast pattern based on the most recent mammogram. It is a requirement for mammographers to report the level of density noted on the mammogram. Women with dense breasts should make certain that they have a digital mammogram as opposed to the older analogue system (just ask your doctor for a copy of your report).

Women with dense breasts should be aware of the need for adding ultra-sound examination in the case of a perceived lump or persistent focal pain. Another test that is extremely valuable in detecting small cancers in women with very dense breasts is the MRI. Although expensive and often not covered by insurance companies, it has a > 95% rate of detection of small cancers whereas the success rate of the mammogram in women with dense breasts is in the range of 70%.

Women with dense breasts should evaluate all of their individual risk factors. Women with multiple risk factors should consider participation in high risk screening clinics. All women should be aware of the modifiable risk factors that can reduce the risk of cancer. Also, all women can improve their chances for early detection by following the Be Aware early detection guidelines.

As always, I hope this brief review has been helpful. Feel free to Ask The Doctor if you have any questions, or you can contact us.