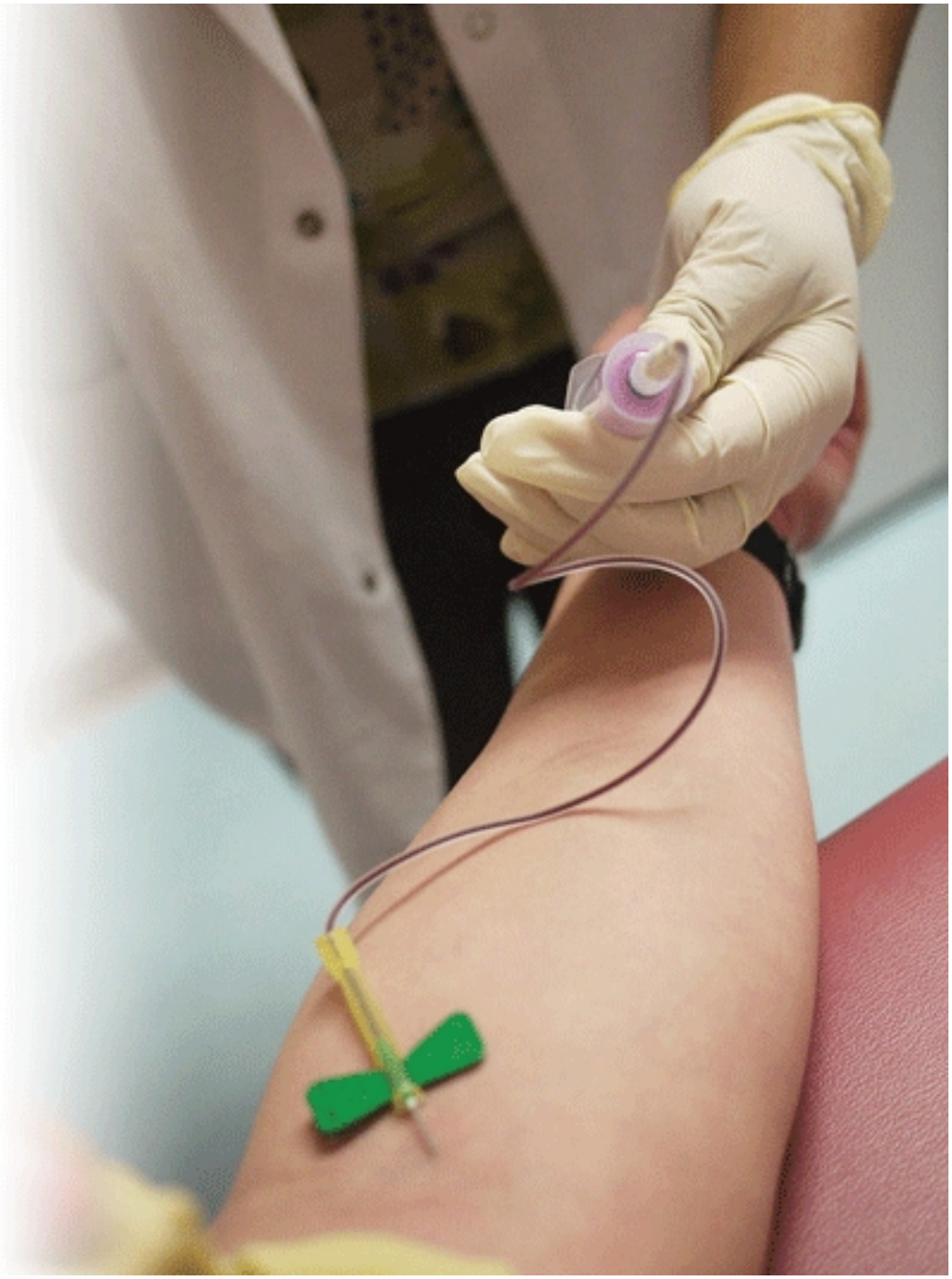

BY TYLER KANG, M.D.

Special to the Times

When one of our patients learned that she was at high risk for breast cancer through a BRCA blood test, she had a difficult decision to make.

She was a young woman in her 30s whom we had successfully treated for breast cancer in one of her breasts. Because she had the breast cancer susceptibility gene 1 (BRCA1) mutation, she was at high risk for developing cancer in her other breast.

She considered many preventative treatment options, including increased cancer screenings, medication to reduce risk, and a prophylactic mastectomy (removal of her remaining breast). She decided to have her remaining breast removed, which we discovered had an early stage cancer that was not yet visible on a mammogram. In her case, the blood test helped save her life.

While cancer blood tests are not for everyone, many of these tests can be lifesaving for women and men at high risk for certain cancers.

BRCA1 and BRCA2 Blood Tests (408)

The BRCA blood test analyzes two genes, which are very small units in our cells that play a role in how we look, act and even what diseases we might be at risk for.

Specifically, this blood test looks at genes called BRCA1 and BRCA2 to see if you have inherited any abnormal changes that might increase your risk for certain types of cancer.

The BRCA blood test is most often performed on patients at high risk such as those with:

• A prior history of breast and/or ovarian cancer at a young age

• A family history of breast and/or ovarian cancer in a sibling, parent or child at a young age

Ethnic background can also be a risk factor: Women of Ashkenazi Jewish descent tend to have a higher incidence of BRCA mutations.

Understanding Your Risk: Abnormal changes to the BRCA1 and/or BRCA2 genes mean that you have a greater risk of developing breast and ovarian cancer during your lifetime; however, there are preventative treatments that can help reduce your cancer risk.

Prostate-specific Antigen (PSA) Test

For men, a PSA test measures the blood level of a protein produced by a small organ in the male reproductive system called the prostate.

While cancer cells may produce PSA in higher amounts than normal cells, there are other diseases that can increase the PSA level. Consequently, patients with a border line/medium elevation of PSA may require a follow-up biopsy in which a doctor removes a small piece of prostate tissue for further cancer testing in a lab. However, an extremely high PSA level most often indicates the presence of cancer.

A new, more accurate prostate screening test, known as Beckman Coulter's Prostate Health Index or "phi," may help reduce the number of unnecessary biopsies in some men and should be available soon in the U.S.

Men at high risk should talk with their doctors about the pros and cons of the PSA test.

High-risk factors include (1) having two or more first-degree relatives (e.g., a father, brother or son) diagnosed with prostate cancer at a young age and/or (2) ethnic background — African-American men are at higher risk for prostate cancer.

If you are over the age of 50 with a family history of prostate cancer or with significant symptoms, such as frequency of urination and decreased urine stream, talk with your doctor about prostate cancer testing.

Steps You Can Take

Both men and women at high risk should have an in-depth discussion with their doctor to see if a cancer blood test may be of benefit. Early detection can significantly improve the success of treatment outcomes.

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