USPSTF: No Routine Screening for *BRCA* Mutations

BY AMY PFEIFFER
Associate Editor

Women should not routinely undergo genetic screening or counseling for breast and ovarian cancer risk based on gene mutations unless they are at high risk, according to a first-time recommendation on this topic by the U.S. Preventive Services Task Force.

The task force, an independent panel of experts in prevention and primary care, recommended that primary care physicians not routinely refer women for genetic counseling or DNA testing for *BRCA1* or *BRCA2* gene mutations because harms and costs outweigh the benefits (Ann. Intern. Med. 2005;143:355-61).

However, the task force did recommend that women with a family history of breast and ovarian cancer undergo screening for gene mutations if they are at increased risk.

Women at increased risk include those of Ashkenazi Jewish descent with a first- or second-degree relative with breast or ovarian cancer. Women not of this descent are at risk if they have family history patterns of breast and ovarian cancer (multiple first- and second-degree relatives).

According to the task force, only 2% of the general population is said to have *BRCA* gene mutations based on family history. The task force recommendation estimated that between 1 in 300 and 1 in 500 women have the *BRCA* gene mutations in the general population, but not everyone with the mutations will develop breast or ovarian cancer.

The panel said women with a family history of breast or ovarian cancer should undergo screening for gene mutations if they are at increased risk.

Of women aged 70 years or less with *BRCA* gene mutations, 35%-84% will develop breast cancer and 10%-50% will develop ovarian cancer, the task force noted.

In women found to have *BRCA1* or *BRCA2* gene mutation, MRI has proved to be more effective than other screening methods to detect breast cancer.

Options for women found to have *BRCA* gene mutations to reduce breast and ovarian cancer risk include mastectomy or oophorectomy, intensive screening, preventive chemotherapy, or a combination of preventive measures, according to the task force, which added that the benefits of taking these steps have not been confirmed.

The task force recommended that physicians work together with patients who have the gene mutations to decide on a course of action.

"A woman who gains an understanding of the risk she faces may feel less anxious and have a sense of better control of her future," said USPSTF Chair, Ned Calonge, M.D.

Tools are available to assess *BRCA1* and *2* gene mutation risk, but their effectiveness in the primary care setting has not yet been determined, according to the task force.

Further studies on this topic should include "the effectiveness of risk stratification and genetic counseling when delivered in different settings and by different types of providers, appropriate training for counselors, use of system supports, and patient acceptance of educational strategies," the task force recommended.

Breast cancer mortality should be assessed in future studies based on women who undergo an MRI, and *BRCA* screening tools should be studied and validated for use in primary care to help physicians make appropriate referrals for genetic counseling, the task force added. ■

The task force recommendations are available online at www.ahrq.gov/clinic/uspstf/uspsbrca.htm.

Black Women Welcome Genetic Tests for Breast Ca

GRAPEVINE, TEX. — African American women are almost as likely to pursue genetic testing for breast cancer as are white women, North Carolina researchers report.

"There is a perception in the genetic counseling field that African Americans are less likely to pursue genetic testing when it's offered," said Lisa Susswein, genetic counselor, University of North Carolina at Chapel Hill. "It has been thought that there were cultural barriers and, possibly, the inability to pay that kept African Americans from genetic testing."

But when women diagnosed with or at high risk for breast cancer were offered a test to detect *BRCA1* or *BRCA2* gene mutations, both African Americans and whites accepted. The results were presented at a meeting sponsored by the American College of Medical Genetics.

The test was offered to women who exceeded a 5%-10% risk of harboring a *BRCA* mutation as well as to women recently diagnosed with breast cancer. The test was offered to more than 800 women referred to the center.

Of those in the overall high-risk population who were offered the test, 58% of white women and 43% of African American women pursued the test. Among those women recently diagnosed with breast cancer, acceptance was 61% among whites and 50% among African American women, which was not a statistically significant difference.

Many studies have shown black women are less likely to pursue genetics testing, she said. "This may have been perpetuated by physicians not offering genetics testing, and it's a circle that continues."

Regardless of race, it is important to do testing in breast cancer patients before the primary surgery so they can be given the opportunity to have one surgery with prophylactic double mastectomies, she said.

"This shows that African American women are interested in *BRCA* testing," Ms. Susswein said. "We … shouldn't shy away from offering them the test."

—Linda Little

Weight Loss and *BRCA1* Cut Risk Of Breast Cancer

A weight loss of at least 10 pounds will significantly decrease the risk of early-onset breast cancer in women who carry a *BRCA* mutation, results of a large case-control study suggest.

Early-adulthood weight loss is especially important for women with the *BRCA1* mutation, wrote Joanne Kotsopoulos, a doctoral student at the University of Toronto, and her colleagues (Breast Cancer Res. 2005;7:R833-43; doi 10.1186/bcr1293, online at http://breast-cancer-research.com/content/7/5/R833).

The investigators examined early-onset breast cancer in 1,073 matched case-control pairs; about 75% had mutations and 25% had *BRCA2* mutations.

Weight loss of at least 10 pounds between age 18 and 30 resulted in an overall 34% reduction in breast cancer risk. The risk reduction was greater (63%) for breast cancers diagnosed between age 30 and 40, but not significant for breast cancer diagnosed after age 40. Women with the *BRCA1* mutation experienced the greatest risk reduction with weight loss (65%). The risk reduction was nonsignificant (22%) for women with the *BRCA2* mutation.

Weight gain of more than 10 pounds also canceled out any protective effect of parity. Gaining more than 10 pounds and having two full-term pregnancies increased the risk of early-onset breast cancer by 44%, compared with women who gained minimal weight and had at least two pregnancies.

About 40% of the women who lost 10 or more pounds had a body mass index of 25 kg/m^2 or higher at age 18. "This suggests that recommendations regarding weight loss should be targeted to women considered to be overweight," the authors wrote.

—Michele G. Sullivan