

## Tamoxifen, raloxifene findings unlikely to encourage genetic screening for breast cancer

Reports that two medications can reduce the risk of breast cancer in some patients fueled speculation that genetic screening, particularly for women at high risk for the disease, might become more popular. Genetic testing identifies mutant alleles of the BRCA1 and BRCA2 genes that correlate with a high risk of breast cancer, but the absence of effective prophylaxis against tumors has hitherto discouraged many patients from being tested.

Results made public in April by researchers from the National Cancer Institute and the National Surgical Adjuvant Breast and Bowel Project show that Zeneca's established chemotherapeutic drug tamoxifen can prevent as well as treat: it reduced the incidence of invasive breast cancer by almost half in women at high risk for the disease. This news was followed in May by an announcement at the American Society of Clinical Oncology meeting that another estrogen signaling pathway modulator, Eli Lilly's raloxifene, can decrease the risk of breast cancer in some postmenopausal women.

Jeannie Pasacreta, an associate professor at Yale University who studies the psychological impact of breast cancer, had expected the new findings to be of considerable interest to patients in the highrisk group. "Women who seek the services of a genetic counselor seem less excited about [the data] than I thought they would be. Many of these women still see prophylactic surgery as their major option, much more so than tamoxifen," she says. Karla Kerlikowske, a cancer researcher at the University of California, San Francisco, concurs: "If a woman is BRCA1 positive with a risk of cancer of 80 percent, at best tamoxifen would decrease this to about 45 percent, which is still a high risk."

In addition to questions about the efficacy of the treatment, many patients are confused about the implications of the test. "BRCA is a paradigm for all genetic testing. When it becomes commercially available, then the concern is whether someone has seriously considered the issues," explains Susan Pauker, Chief of Genetics at Harvard Vanguard Medical Associates. Unfortunately, she adds, qualified genetic counselors are in short supply and many insurance plans do not cover their services.

BRCA testing is ordinarily recommended only for women with a family history of breast or ovarian cancer, but even among that group demand has been low. In the United States, the risk of losing

medical and life insurance coverage is the most commonly cited reason for opting out of testing. But in Canada, which has nationalized health care, the absence of good preventive treatments has been a more important issue. Steve

Narod, a researcher at the University of Toronto Women's College Hospital, envisions preventive chemotherapy being used to complement current treatments: "A crucial issue . . . in BRCA1 carriers is we'd like to be able to

do a prophylactic oophorectomy in order to manage the ovarian cancer risk and provide a chemotherapeutic agent to manage breast cancer." He cautions, though, that the recent tamoxifen study did not specifically focus on the subset of patients with a mutant BRCA1 gene, who may tend to develop more aggressive tumors.

Even if the value of genetic screening for breast cancer becomes widely accepted among doctors as therapeutic options improve, patients will not necessarily embrace it. Regular mammograms have long been considered standard for women between the ages of 50 and 74, but a recent analysis shows that compliance with this protocol is extremely low. "Three-quarters of women [in this age group] are not obtaining regular mammograms and therefore it is unlikely that women will suddenly start getting more genetic screening," says Kathryn Phillips, a researcher at UCSF who directed the mammography study. Echoing the need for more counseling, Phillips notes that

women who have close relationships with their doctors are more likely to adhere to the mammogram schedule. Such a qualitative issue is difficult to measure, but experts concur that it can have a substantial effect. However, a House of Representatives subcommittee recommended last month that Congress requires

mammography results to be communicated directly to patients when it reviews the 1992 Mammography Quality Standards Act later this year. Some fear that such notification procedures will be detrimental because they will circumvent the doctor-patient relationship.

Pauker adds that additional factors also reduce compliance with the protocol: "[A mammogram] involves radiation, which can be worrisome and it's physically unpleasant. So you're asking people to do something that has a significant downside. We need, of course, a better test." Unfortunately, a better test has yet to be devised.

ALAN DOVE, NEW YORK



## Breast cancer research stamp

The US Post Office has unveiled a new postage stamp to be sold in support of breast cancer research. The 'semipostal' stamp, which goes on sale in August, will cost 8 cents more than regular postage and the extra proceeds will go to support breast cancer research programs at the National Institutes of Health (70 percent) and the Department of Defense (30 percent). This is the first time that a stamp has been used to raise money for charity or research in the US. The success of the venture will be evaluated in a General Accounting Office report due by May 2000.

KAREN BIRMINGHAM, NEW YORK

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