Can preventive mastectomies prolong lives?

One of the most painful decisions a woman may ever have to make is whether to undergo a mastectomy to battle cancer. When she has a tumor, she often has little choice. However, as doctors are able to identify healthy women who carry the mutated genes implicated in some breast cancers, a number of women are choosing surgery to head off a high cancer risk.

To aid in this decision, scientists are trying to gauge the value of these voluntary mastectomies.

Since the first of the breast cancer genes was discovered in 1994, debate over such preventive surgery has grown. A new computer model devised at the Dana-Farber Cancer Institute and Harvard Medical School, both in Boston, now suggests that a woman carrying a mutated *BRCA1* or *BRCA2* gene could add 2.9 to 5.3 years to her life expectancy by having both breasts removed at age 30.

The model aims to help women and doctors assess risks and weigh options, says Jane C. Weeks of Dana-Farber. She cautions that the model is far from the final word on whether doctors should recommend such mastectomies or even test women for the mutations.

"We are trying to create a starting point for these drastic and irrevocable surgeries, to provide a framework for doctors in deciding on strategies that make sense," says study coauthor Deborah Schrag, also of Dana-Farber.

Just having a mutated *BRCA* gene doesn't ensure that a woman will get cancer, but it increases her odds. Women with either of the mutated genes have a 40 to 85 percent chance of developing breast cancer by age 70, Weeks says, compared to 12 percent for all U.S. women. Women carrying one of the genes also face an elevated risk of developing ovarian cancer—between 5 and 60 percent—compared to 1.5 percent overall.

Removal of the ovaries, or oophorectomy, boosts the life span only 4 to 20 months for a 30-year-old woman carrying one of the mutated genes, the model shows. Having both operations would add slightly more years than a mastectomy alone, the researchers report in the May 15 NEW ENGLAND JOURNAL OF MEDICINE (NEJM).

For a woman who has a mutated gene as well as a family history of breast or ovarian cancer—and thus could face an 85 percent likelihood of getting cancer—preventive mastectomy and oophorectomy at age 30 would add 7.6 years.

The value of preventive mastectomies diminishes with age, the model reveals. A 40-year-old carrier of a faulty *BRCA* gene would add 2 to 3.7 years to her life expectancy, whereas a 60-year-old would gain less than 1 year.

Because the *BRCA* genes were discovered only recently, researchers lack long-term studies that would provide a measure of the worth of preventive mastectomies, Weeks says.

Even so, these operations appear to be brutally effective. Lynn Hartmann of the Mayo Clinic in Rochester, Minn., reports that in an ongoing study of nearly 300 women who had a strong family history of breast cancer and who had a preventive double mastectomy between 1960 and 1993, only two developed cancer in the breast area later.

Hoda Anton-Culver of the University of California, Irvine says that, in the absence of a long-term study of women with a *BRCA* gene, "a modeling study is a good thing to have."

Bernadine Healy, former director of the National Institutes of Health and now at Ohio State University in Columbus, warns in an editorial in the same issue of NEJM that research into breast cancer genetics "is in danger of being overwhelmed by a flood of information on odds making and fortune-telling that is affecting the care of individual patients."

— N. Seppa

Health may succumb to grief reaction

A severe form of bereavement increases the likelihood of suffering from a host of physical and mental ailments up to 2 years after a partner's death, according to a new study. A surviving spouse's long-standing insecurities regarding intimate relationships presages such a grief response, the researchers propose.

This virulent strain of bereavement, dubbed traumatic grief by psychologist Holly G. Prigerson of Yale University School of Medicine and her colleagues, may diminish in response to psychotherapy. Without treatment, the condition appears to promote sleep disturbances, wrenching anguish, and suicidal thoughts, as well as increased alcohol, tobacco, and food consumption, high blood pressure, heart trouble, and perhaps even cancer, Prigerson's group reports in the May AMERICAN JOURNAL OF PSYCHIATRY.

"We find that individuals exhibiting traumatic grief tend to have relied on their departed spouses as a Band-Aid for an underlying insecurity in close relationships that often got its start in childhood," Prigerson holds.

It is not unusual for grief to trigger feelings of depression, personal worthlessness, and despair, for which clinicians typically offer treatment. Traumatic grief, says the Yale scientist, represents a distinct form of bereavement characterized by searching and yearning for the deceased, disbelief that a dead partner is really gone, avoidance of reminders of the spouse, bitterness and guilt over the death, and hallucinations of seeing or hearing the lost loved one (SN: 1/14/95, p. 22).

These symptoms may represent a form of post-traumatic stress disorder, Prigerson theorizes.

She and her coworkers studied 150 widows and widowers, first contacted when their spouses were hospitalized for serious illnesses. Interviews were conducted 6 months later, by which time all of the volunteers had been bereaved, and again 1 year and 2 years after the initial hospitalization.

The 92 women and 58 men who had lost their spouses averaged 62 years old. Most of them were white and had been married for at least 20 years.

Over the 2-year period of the study, new instances of a variety of health problems occurred much more frequently in the 33 participants who had been diagnosed with traumatic grief at the 6-month interview. Four of the 33 were diagnosed with cancer during the study period, whereas none of the other volunteers was. Larger studies are needed to explore possible influences of traumatic grief on cancer, Prigerson says.

In a subsequent study of 20 similarly bereaved adults suffering from traumatic grief, Prigerson has found substantially greater drops in immune cell function than those already reported for major depression.

Prior studies have linked physical and mental ailments to bereavement, but none has examined differences between individuals who did or did not develop traumatic grief, she adds.

In the upcoming July AMERICAN JOURNAL OF PSYCHIATRY, Prigerson's group describes the successful treatment of a woman suffering from traumatic grief. Psychotherapy sessions addressed serious disturbances in her sense of security and trust in her parents and others that extended back to her childhood.

"Traumatic grief is probably a valid condition that may lead to serious health problems," says psychiatrist Sidney Zisook of the University of California, San Diego School of Medicine. "But we need to know more about how it works."

For instance, he notes, traumatic grief symptoms seen after a spouse's gradual death from disease may differ from those appearing after an accidental death or suicide. *— B. Bower*