



ISSUE BRIEF

Mastectomy vs. Lumpectomy: Who Decides?

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In 2003, more than 200,000 women in the U.S. will be diagnosed with breast cancer. Experts agree that for most early-stage breast cancer (stage 0, 1 or 2), lumpectomy (which removes just the cancer and the breast tissue around it) is just as safe as mastectomy (which removes the entire breast), if the lumpectomy is followed by radiation treatment.¹ Half of the women that experts deem eligible for lumpectomy, however, will undergo mastectomy instead. Why are so many women undergoing medically unnecessary mastectomies? At a 1990 Conference sponsored by the National Institutes of Health, experts agreed that since survival rates were the same, lumpectomy followed by radiation is the preferable treatment for most women with early-stage breast cancer.² But even today, a dozen years later, many women eligible for breast-conserving surgery are getting mastectomies. Studies have found that some women are not even told that lumpectomies are an option.

Between 75 and 80 percent of women newly diagnosed with breast cancer have early-stage breast cancer. Most of these women are eligible for breast-conserving surgery, but many undergo mastectomies instead.

breast cancer at any stage. Research showing the safety of lumpectomy, dates from the mid 1980's. A study of 157 hospitals in North Carolina found that patients were more likely to undergo breast-conserving surgery if their surgeons were trained after 1981.⁵ One logical explanation is that doctors trained after 1981 were trained to do lumpectomies and are more knowledgeable about the research showing the safety of lumpectomy.

Researchers believe that physician knowledge and attitudes are a likely explanation for the dramatic regional differences they have documented in breast-conserving surgery. In 1986, breast-conserving surgery was more than twice as common in the Middle Atlantic states and New England than in the South Central states.⁶ More recent studies show similar regional differences. Unfortunately, the reasons for these disparities have not been adequately studied.

More Mastectomies Related to Poverty, Doctors' Preferences, Women's Fear

One reason is economic – surprisingly, it is less expensive to perform a mastectomy than a lumpectomy. In addition to a more time-consuming surgery, radiation adds to the cost of lumpectomy but is rarely required for mastectomy. Moreover, some insurance plans do not cover all the expenses of the lumpectomy or the radiation therapy, because they are usually outpatient procedures. According to a study of one large urban hospital in Texas serving mostly indigent women, 84% of the women with early-stage breast cancer had mastectomies and only 16% had lumpectomies.³ Similarly, a study of 20,000 breast cancer patients in North Carolina reported lower lumpectomy rates among patients who did not have private insurance.⁴ In some hospitals, all breast cancer patients have mastectomies, regardless of their diagnosis.

Older doctors are more likely to recommend mastectomies. For decades, mastectomy was the standard treatment for

One factor is fear. Some women are very afraid of recurrence and choose mastectomy because the chances of recurrence in the same breast are reduced when the breast is removed. Some women are afraid of radiation therapy. Radiation therapy does cause side effects, but they are usually relatively mild, such as fatigue or skin irritation. Only very infrequently does radiation therapy cause long-lasting problems. However, there is the issue of access to radiation. In rural areas, patients sometimes must travel hundreds of miles five days each week for 5-8 weeks to get radiation treatment after lumpectomy.

Breast cancer is still relatively rare among women in their 20's and 30's, but there is some evidence that women diagnosed with breast cancer at an early age tend to have more aggressive cancers. Survival rates are lower.⁷ This does not mean, however, that young women always need mastectomies, and each patient should receive the medical treatment that is best for her, based on her own diagnosis and preferences.

Are New Requirements the Answer?

Several states have tried to ensure that each breast cancer patient knows what surgical options are available and have passed laws requiring that designated written information is provided to every patient. Research has shown the benefits and limitations of these efforts: after passage of the state laws, breast-conserving surgery rates increased by 9% in Michigan and 13% in Hawaii.⁸ The increases were not maintained over time, however, perhaps because requiring physicians to provide objective information does not necessarily change their recommendations. Instead, providing objective information directly to the general public might help dispel the fears and myths that contribute to the disparities in treatment across the U.S. In addition, insurance policies that improve patient access to lumpectomy and radiation as an affordable option for treatment would also help ensure that women can make treatment choices instead of having the decisions made for them.

Surgical Treatment Disparities for Early-Stage Breast Cancer

These are a few examples of the studies of thousands of patients, published in major medical journals, which indicate that:

- ❖ Between 75 and 80 percent of women newly diagnosed with breast cancer have early-stage breast cancer. The vast majority of these women are eligible for breast-conserving surgery,⁹ but at many medical centers, most women undergo mastectomies instead.^{4, 10}
- ❖ Women are more likely to undergo breast-conserving surgery if their physicians graduated from medical school after 1981, according to a study in North Carolina, compared to physicians who graduated before 1961.⁴
- ❖ Surgeons have a greater propensity towards performing breast-conserving surgery if they practice in an area with higher Medicare fees for breast-conserving surgery, believe in patient participation in treatment decisions, and are female.¹¹

- ❖ Among women with early-stage breast cancer, mastectomies are much more likely in some states, such as Minnesota, than other states, such as Massachusetts.¹² Mastectomies are especially common in the Midwest and South.^{13, 14}
- ❖ Breast-conserving surgery is much more likely to be performed on younger women, and becomes increasingly unlikely as a woman ages.⁴ The exception is women 80 years of age or older, among whom the frequency of breast-conserving surgery is highest.¹⁵
- ❖ Women who are treated in university-based hospitals are more likely to have breast-conserving surgery, and patients in community hospitals are less likely.^{12, 13}
- ❖ Women who are treated in hospitals that have radiation facilities are more likely to have breast-conserving surgery than women treated in hospitals that do not have such facilities. This is not only because of the availability of radiation treatment; breast-conserving surgery is less likely to be performed even if radiation facilities are conveniently located nearby.¹⁶
- ❖ Mastectomies are especially likely to be unnecessary for most non-invasive breast cancers, such as ductal carcinoma in situ, yet many women with those cancers undergo mastectomies.^{17, 18}
- ❖ Breast-conserving surgery with radiation is somewhat more expensive than mastectomy in the short run, but breast-conserving therapy is less expensive than mastectomy after 5 years.¹⁹ Breast-conserving therapy is much less expensive than mastectomy with reconstruction.²⁰
- ❖ Low-income women and those who are less educated are less likely to have breast-conserving surgery.¹⁰ Patients without private insurance are also less likely to have breast-conserving surgery.^{4, 21}
- ❖ Patients who undergo breast-conserving surgery are more likely to have sought a second opinion and more frequently report having made the decision themselves, whereas mastectomy patients are more likely to have relied on the advice of their physicians.²²

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