

Giving Aromatase Inhibitor Treatment Before Surgery May Reduce Mastectomies for Women With High Tumor Levels of Estrogen Receptors

In a recent study, researchers found that treating estrogen receptor (ER)-positive breast cancer with an aromatase inhibitor (AI) before surgery helped women avoid a mastectomy, allowing them to instead have breast-conserving surgery, also called a lumpectomy. An aromatase inhibitor is a type of endocrine (hormonal) therapy that reduces the amount of estrogen in a woman's body. AIs help treat breast cancer by slowing or stopping tumors that use estrogen to grow.

The women in this study had been through menopause, had tumors with many estrogen receptors, and had stage II or III breast cancer. Based on the tumor size and location, each woman's cancer was divided into one of three groups before treatment: marginal, meaning that lumpectomy might be an effective treatment; ineligible, meaning that a mastectomy, not a lumpectomy, would be the most effective surgery; and, inoperable, meaning the cancer could not be removed with surgery.

Before surgery, the women received one of three different AIs: exemestane (Aromasin), letrozole (Femara), or anastrozole (Arimidex). After four months of AI treatment, 71% of women who received letrozole, about 67% who received anastrozole, and about 61% who received exemestane had their tumor shrink or go away completely. After treatment with an AI ended, the women were re-evaluated for surgery. After each patient's tumor was re-evaluated, researchers found that 82% of women whose tumors were considered marginal were able to have a lumpectomy. In addition, around half (51%) of the women with tumors considered ineligible and 75% of the women with tumors considered inoperable were able to have a lumpectomy. Treatment with an aromatase inhibitor before surgery may spare many women from having a mastectomy and offers women with larger tumors a chance to have breast-conserving surgery.

What this means for patients

Although hormonal therapy is usually given after surgery, this study showed that some women could benefit from hormonal therapy before surgery, based on the amount of ER in the tumor. High tumor ER levels provide a way for doctors to identify the patients who will do well with this treatment approach, said lead author John Olson, MD, PhD, Associate Professor of Surgery and Chief of the section of Endocrine, Breast, and Oncologic Surgery at Duke University in Durham, NC. These results may raise awareness that endocrine therapy can be an effective option for women who want a chance to have breast-conserving surgery after being told at diagnosis that mastectomy is the only surgical option.

What to ask your doctor

- What type of breast cancer do I have?
- What is the stage? What does this mean?
- What is the ER status of my tumor? What does this mean?
- What are my treatment options?
- Am I a candidate for a lumpectomy?
- What treatment do you recommend?
- Do you recommend any treatment before surgery?
- What are the side effects of this treatment?

For More Information

[Guide to Breast Cancer](#) [1]

[What to Know: The ASCO and CAP Guideline on Estrogen and Progesterone Receptor Testing for Breast Cancer](#) [2]

[What to Know: ASCO's Guideline on Hormonal Therapy for Hormone Receptor-Positive Breast Cancer](#) [3]

[Talking With the Doctor About Breast Surgery Options](#) [4]

Links:

- [1] <http://www.cancer.net/node/18618>
[2] <http://www.cancer.net/node/25786>
[3] <http://www.cancer.net/node/25678>
[4] <http://www.cancer.net/node/24393>