

Low-Dose Estradiol as Effective as High Dose in Treating Aromatase Inhibitor-Resistant Breast Cancer

BY MELISSA WEBER

A recent discovery that breast cancer cells once fueled by estrogen could be destroyed by the hormone has led to research in which estrogen therapy is introduced after breast cancer cells become resistant to agents, such as aromatase inhibitors, that block estrogen synthesis. Unfortunately, some breast cancers become resistant to aromatase inhibitors.

A phase II study randomly assigned 66 patients with advanced hormone receptor-positive breast cancer that had developed resistance to aromatase inhibitors to receive two different doses of estradiol, a potent form of estrogen. Patients treated with a low dose (6 mg) of estradiol responded as well as patients receiving a high dose (30 mg), with the low dose causing fewer side effects. Of the 32 patients in the high-dose arm, one patient's tumor shrank by at least 50 percent and seven patients had stable disease. In the low-dose arm of 34 patients, stable disease was observed in seven patients and another three patients had tumor shrinkage of at least 50 percent. Severe side effects were experienced by 11 patients in the high-dose arm compared with four patients in the low-dose arm. The high-dose arm of the study was closed early after it was concluded that there was equal efficacy plus greater safety in the low-dose arm.

Patients whose tumors responded to estradiol and then progressed could be retreated with an aromatase inhibitor; a strategy that investigators say is still a work in progress. So far, two patients have responded to repeat hormonal therapy after estradiol.

Though not yet practice-changing, researchers say a large phase III trial is now needed to confirm that estradiol can be used after aromatase inhibitor resistance to successfully control progression of cancer and kill the disease.

Read more of *CURE's* coverage of the 31st annual San Antonio Breast Cancer Symposium at <http://media.curetoday.com/htmlmail/sabcs>.