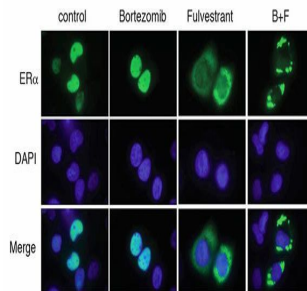


Drug Combination Delays Progression of Breast Cancer



According to the results of a multi-centre phase II trial presented at the 2014 San Antonio Breast Cancer Symposium, a new combination of cancer drugs delayed disease progression for patients with hormone-receptor-positive metastatic breast cancer.

The study is based on the work done by Doris Germain of Mt. Sinai Hospital and included 118 post-menopausal women with metastatic hormone-receptor-positive breast cancer. Their cancer had continued to progress despite being treated with an aromatase inhibitor.

The study found that the combination of bortezomib and fulvestrant versus fulvestrant alone doubled the survival rate at 12 months and also reduced the chance of cancer progression.

Bortezomib is a proteasome inhibitor and is commonly used to treat multiple myeloma. Fulvestrant causes clumping of the estrogen-receptor protein. When used in combination, bortezomib blocks the ability of the cell to these protein clumps and they become larger and more toxic to cancer cells. This in turn amplifies the effectiveness of fulvestrant.

According to Dr. Kerin Adelson, Assistant Professor of Medical Oncology at Yale Cancer Center and Chief Quality Officer at Smilow Cancer Hospital at Yale-New Haven, the drug combination increased the number of patients whose cancer had not progressed after one year, from 14 percent to 28 percent.

"This provides the foundation for future studies combining selective estrogen-receptor destroyers with proteasome inhibitors," Adelson said. "Because the study showed a statistically significant benefit among patients whose disease progressed on an aromatase inhibitor, a larger phase III study comparing this combination to other approved therapies used after initial therapies fail, like exemestane and everolimus, should be done."

The findings of the study also suggest that the combination of bortezomib and fulvestrant could delay or overcome resistance to fulvestrant. However, there is a need to study the combination in other populations of patients, including those who have been newly diagnosed with metastatic breast cancer and those who have already progressed on fulvestrant.

Source: Yale University

Image Credit: Yale University

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