Pertuzumab and trastuzumab combination improved efficacy for women with HER2-positive breast cancer

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The combination of pertuzumab and trastuzumab had superior antitumor activity in women with early HER2-positive breast cancer, according to Phase II study results of the NeoSphere neoadjuvant trial.

Details of these study results were presented at the 33rd Annual CTRC-AACR San Antonio Breast Cancer Symposium, held Dec. 8-12.

"The findings establish that the addition of pertuzumab to trastuzumab and the chemotherapy drug docetaxel has an impressive rate of tumor eradication (46 percent), which is 50 percent more than achieved with docetaxel and trastuzumab, the standard therapy," said Luca Gianni, M.D., director of medical oncology at the Fondazione IRCCS Istituto Tumori di Milano.

"In addition, the combination of trastuzumab and pertuzumab without chemotherapy is capable of eradicating the tumor in a remarkable fraction of cases (17 percent) without any of the toxicities commonly seen with chemotherapy," Gianni said.

NeoSphere is a randomized trial that tested the efficacy of the new HER2-directed monoclonal antibody pertuzumab in combination with trastuzumab with or without chemotherapy. The trial included 417 women; all participants received four cycles of therapy before they underwent surgery, or as neoadjuvant therapy.

The results showed that combining pertuzumab with trastuzumab might offer improved efficacy to women with early HER2-positive breast cancer, according to Gianni. Additionally, a small percentage of tumors could be treated and eventually cured without chemotherapy.

"The most important result of the study is that a relatively small neoadjuvant trial of short duration can rapidly provide data that better outline the value of different new strategies and shape the approach to further and much larger adjuvant studies," Gianni said.

Investigators are working on a follow-up, adjuvant randomized trial with pertuzumab added to trastuzumab and chemotherapy. They are also conducting several molecular analyses aimed at improving the ability to predict benefit or failure and permit greater focus on personalized treatment of HER2-positive breast cancer.

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