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Adding a second HER2 blocker may lower chance of invasive breast cancer for some women

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A phase III clinical trial of 4,805 women with HER2-positive breast cancer suggests adding a second HER2 targeted medicine, pertuzumab (Perjeta), to standard of care trastuzumab (Herceptin) after surgery may help, although the benefit is modest.

The study will be featured in a press briefing today and presented at the 2017 American Society of Clinical Oncology (ASCO) Annual Meeting.

At an early follow up of three years, 93.2% of women who received trastuzumab alone had not developed invasive disease compared with 94.1% of those who received pertuzumab and trastuzumab, a difference of 1%. While the prognosis for patients who receive standard of care trastuzumab is already favorable, patients in the study who received pertuzumab and trastuzumab had a 19% lower chance of developing invasive breast cancer than those who received trastuzumab alone.

Invasive breast cancer begins in the milk ducts or glands and spreads into surrounding tissue. From there it can spread to nearby lymph nodes and beyond. Invasive breast cancer is therefore much more difficult to treat than non-invasive cancer.

"Women with HER2-positive breast cancer used to have a worse prognosis than those with HER2-negative cancer, but the advent of HER2-targeted therapy changed the outlook for these women," said lead

study author Gunter von Minckwitz, MD, PhD, President of the German Breast Group in Neu-Isenburg, Germany. "Our early findings suggest that we may be able to further improve outcomes for some women by adding a second HER2-targeted treatment, without increasing risk for serious side effects."

While trastuzumab targets only HER2, pertuzumab blocks HER2 and HER3. Using both antibodies establishes a more complete blockade of cancer cell growth signals and may lower the chance of treatment resistance. The authors estimate that about 8% of all patients diagnosed with breast cancer (about 20,000 women in the United States alone) have early, HER2-positive disease and may benefit from this adjuvant therapy.

About the Study

Following mastectomy or lumpectomy, nearly 5,000 patients with HER2-positive, early breast cancer were randomly assigned to receive standard adjuvant chemotherapy for 18 weeks plus one year of either trastuzumab and placebo or trastuzumab and pertuzumab. The study did not include patients with very small tumors (less than 1 cm across), as those patients could be treated with only chemotherapy (without the need for a HER2 blocker).

Overall, 63% of patients had cancer that had spread to the lymph nodes (node-positive disease), and 36% had hormone receptor-negative disease. There were similar proportions of patients with either disease characteristic in the two treatment groups.

Key Findings

The addition of pertuzumab to trastuzumab lowered the chance of

developing invasive breast cancer by 19% compared to trastuzumab alone. At a median follow up of almost 4 years, 171 (7.1%) patients in the pertuzumab group had developed invasive breast cancer, compared to 210 (8.7%) patients in the placebo group.

At 3 years, an estimated 94.1% of patients in the pertuzumab group were free of invasive breast cancer, compared to 93.2% of patients in the placebo group. The benefit from pertuzumab appeared slightly greater among patients with node-positive disease - the three-year invasive disease-free survival rate was 92% with pertuzumab vs. 90.2% with placebo. In contrast, in the patients with node-negative cancer, invasive disease-free survival rate was not influenced by pertuzumab at this early point of analysis.

"These are very early results, but given that the absolute benefit from adding pertuzumab was modest, we should consider using it primarily in women with the highest risk - those with node-positive and hormone receptor-negative breast cancer," said Dr. von Minckwitz.

The rates of serious side effects were low and similar in both groups - heart failure or heart-related death occurred in 0.7% of patients in the pertuzumab group and in 0.3% of patients in the placebo group. Severe diarrhea was more common with pertuzumab, occurring in 9.8% of patients, compared to 3.7% of those who received placebo.

Next Steps

The researchers will continue following patients to explore potential long-term benefits of pertuzumab. Meanwhile, they are exploring tumor samples collected in this study for biomarkers that may help predict which patients benefit from the addition of pertuzumab.

"We also need more research to determine the optimal duration of

adjuvant therapy. It is possible that patients may not need a full year of treatment after surgery; six months may be enough," said Dr. von Minckwitz.

Provided by American Society of Clinical Oncology

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