

ORIGINAL ARTICLE

Lapatinib plus Capecitabine for HER2-Positive Advanced Breast Cancer

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ABSTRACT

BACKGROUND

Lapatinib, a tyrosine kinase inhibitor of human epidermal growth factor receptor type 2 (HER2, also referred to as HER2/neu) and epidermal growth factor receptor (EGFR), is active in combination with capecitabine in women with HER2-positive metastatic breast cancer that has progressed after trastuzumab-based therapy. In this trial, we compared lapatinib plus capecitabine with capecitabine alone in such patients.

METHODS

Women with HER2-positive, locally advanced or metastatic breast cancer that had progressed after treatment with regimens that included an anthracycline, a taxane, and trastuzumab were randomly assigned to receive either combination therapy (lapatinib at a dose of 1250 mg per day continuously plus capecitabine at a dose of 2000 mg per square meter of body-surface area on days 1 through 14 of a 21-day cycle) or monotherapy (capecitabine alone at a dose of 2500 mg per square meter on days 1 through 14 of a 21-day cycle). The primary end point was time to progression, based on an evaluation by independent reviewers under blinded conditions.

RESULTS

The interim analysis of time to progression met specified criteria for early reporting on the basis of superiority in the combination-therapy group. The hazard ratio for the independently assessed time to progression was 0.49 (95% confidence interval, 0.34 to 0.71; $P < 0.001$), with 49 events in the combination-therapy group and 72 events in the monotherapy group. The median time to progression was 8.4 months in the combination-therapy group as compared with 4.4 months in the monotherapy group. This improvement was achieved without an increase in serious toxic effects or symptomatic cardiac events.

CONCLUSIONS

Lapatinib plus capecitabine is superior to capecitabine alone in women with HER2-positive advanced breast cancer that has progressed after treatment with regimens that included an anthracycline, a taxane, and trastuzumab. (ClinicalTrials.gov number, NCT00078572.)

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