Evaluation of trastuzumab (Herceptin), docetaxel and capcitabine as first-line therapy for HER2-positive locally advanced or metastatic breast cancer

A Wardley, A Antón-Torres, X Pivot, F Morales-Vasquez, L Zetina, M de Fátima Díaz Gaul, D Otero Reyes, J Jassim, B Button, R Bell1

1Christie Hospital NHS Foundation Trust, Manchester, UK; 2Hospital Universitario Miguel Servet, Zaragoza, Spain; 3CHU Jean Minjoz, Besançon, France; 4Instituto Nacional de Cancerología, Mexico City, Mexico; 5Hospital Roosevelt, Guatemala City, Guatemala; 6Instituto Nacional de Córrois, Rio de Janeiro, Brazil; 7Hospital CIMA, San José, Costa Rica; 8Akademia Medyczna, Gdansk, Poland; 9Boche Products Pty Ltd, Dee Why, New South Wales, Australia; 10Andrew Love Cancer Centre, Geelong Hospital, Geelong, Victoria, Australia

Introduction

- Up to 50% of metastatic breast cancer (MBC) cases are HER2-positive, and trastuzumab in combination with chemotherapy has shown clinical proof and increased survival rates. Trastuzumab (HT), in combination with a taxane, has shown superior survival over single-agent chemotherapy in the treatment of HER2-positive MBC.
- HT was previously available only in combination with anthracyclines such as doxorubicin (X) and with the taxane docetaxel (T).

Methods

- The study was a randomised, open-label, international trial in HER2-positive patients with newly diagnosed HER2-positive, locally advanced MBC (LABC) or MBC.
- All patients were evaluable for study medication received. Patients who had previously received chemotherapy or radiotherapy or who were on cardiac medication were excluded.
- Patients were randomly assigned to HTX or HT (Figure 1).

Objectives

- The primary objective was to compare the overall response rate (ORR) of HTX and HT.
- Secondary objectives included progression-free survival (PFS), duration of response, and overall survival.
- Safety was also assessed.

Patients

- Patients were followed up for disease progression and survival until death or until 18 months after initiation of treatment for patients alive at 18 months.

Assessments

- Tumour assessments were performed according to Response Evaluation Criteria in Solid Tumors (RECIST).
- LVEF was monitored every 4 cycles with echocardiography or magnetic resonance imaging (MRI).
- Adverse events (AEs) were recorded according to the National Cancer Institute Common Toxicity Criteria (CTC).

Results

- The ORR was 70.5% in the HTX arm versus 66.8% in the HT arm (p=0.717). All patients who achieved a partial response or complete response continued on therapy.
- The median PFS was 17.9 months with HTX compared with 13.6 months with HT (hazard ratio 0.70; 95% CI 0.51, 0.97; p=0.029).
- The difference in OS was not statistically significant: median OS was 61 months (95% CI 49, 71) with HTX and 42 months (95% CI 35, 49) with HT (hazard ratio 0.75; 95% CI 0.66, 0.83).
- No significant differences were observed with respect to the incidence of grade 3 or 4 non-haematological or haematological AEs.

Conclusions

- The study demonstrated that both HTX and HT are highly active first-line treatment regimens for patients with HER2-positive LABC or MBC.
- Both regimens showed ORRs of 70% to 71% and comparable PFS and OS without an increased risk of cardiac-related AEs.
- Overall survival data are immature, so the 1- and 2-year data are provisional, indicating improvements from the HT arm to the HTX arm.

References