Lapatinib and capecitabine combination for HER2 positive metastatic breast cancer: a Hellenic Cooperative Oncology Group study

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Abstract

Background: Women with refractory HER2 positive metastatic breast cancer (MBC) have few effective treatment choices. Lapatinib in combination with capecitabine has shown activity and safety in a clinical trial setting. We studied the efficacy and tolerability of this combination in a broader patient population, participating in the lapatinib expanded

access program (LEAP), or later receiving this combination as part of clinical practice.

Methods: Patients with HER2(+) MBC, who progressed after anthracyclines, taxanes and trastuzumab were provided lapatinib and capecitabine (Lapatinib 1250 mg/day continuously, Capecitabine 2000 mg/m2/day days 1 and 14 of a 21 day cycle), as part of the LEAP; or following regulatory approval, as part of clinical practice.

Results: From February 2005 until March 2010, 60 patients were included. Clinical data are reported on 47 patients. Median age was 54 years and median ECOG PS was 1. The majority received the lapatinib combination as 2nd line treatment (45%), 38% as 3rd or further line, and 17% as 1st line following early relapse after adjuvant trastuzumab treatment. Capecitabine was previously administered to 15% of patients. Brain metastasis was present in 26% of patients. With a median follow-up of 28.5 months, CR was observed in one patient (2%), PR in 30%, SD in 21% and PD in 40% of patients. Efficacy was greater in capecitabine naïve patients and in those receiving the combination in earlier lines (1st vs. 2nd vs. ≥3rd). Median time to progression (TTP) was 7 months (95% CI: 4-11), and the median overall survival (OS) was 26 months (95% CI: 23-NE). Both outcomes differed according to the line of treatment (worse in more advanced lines, p=0.0413 TTP; p=0.0597 OS). Grade 3 toxicity was manageable, no cases of grade 4 occurred.

Conclusions: Lapatinib combined with capecitabine is an active and well-tolerated treatment option for trastuzumab refractory MBC patients, showing the highest efficacy in earlier lines of treatment. Ongoing research on candidate biomarkers may provide tools to identify which patients will most likely benefit from different anti-HER2 strategies.