ESMO GOOD SCIENCE BETTER MEDICINE BEST PRACTICE

Annals of Oncology 30 (Supplement 3): iii34–iii38, 2019
doi:10.1093/annonc/mdz097

EARLY BREAST CANCER: NEOADJUVANT THERAPY

1080 Factors predicting relapse in early breast cancer patients with a pathological complete response after neoadjuvant therapy: Pooled analysis based on the GBG database

J. Huober[1], A. Schneeweiss[2], J-U. Blohmer[3], C. Denkert[4], C. Hanusch[5], C. Jackisch[6], V. Nekljudova[7], F. Seither[7], S. Loibl[8], M. Untch[9]

[1]Dept. of Gynaecology, Breast Center, Universitaetsfrauenklinik Ulm, Ulm, Germany, [2]Centrum für Tumourerkrankungen, Nationales Centrum für Tumourerkrankungen, Heidelberg, Germany, [3]Department of Gynaecology incl. Breast Center, Charité - Medical University Berlin, Berlin, Germany, [4]Institute of Pathology, Charite Berlin Mitte, Berlin, Germany, [5]Klinikum zum Roten Kreuz München, Munich, Germany, [6]Sana-Klinikum, Sana-Klinikum Offenbach GmbH, Offenbach, Germany, [7]Department of Statistic, German Breast Group (GBG) Forschungs GmbH, Neu-Isenburg, Germany, [8]Department of Medicine and Research, German Breast Group (GBG) Forschungs GmbH, Neu-Isenburg, Germany, [9]Clinic for Gynaecology, Gynaecologic Oncology and Obstetrics, Helios Klinikum Berlin Buch, Berlin, Germany

Background: Although patients with a pathological complete response (pCR) after neoadjuvant chemotherapy have an excellent prognosis, some of them will eventually relapse. A better identification of patients with an increased risk of relapse despite a pCR can help selecting these patients for additional post-neoadjuvant treatment strategies. This retrospective analysis aimed to identify factors predicting relapse despite a pCR.

Methods: A total of 2188 patients with a pCR from five neoadjuvant trials (GeparTrio, GeparQuattro, GeparQuinto, GeparSixto and GeparSepto) were included. The pCR was defined as ypT0/ypTis ypN0. Primary endpoint was disease-free survival (DFS); secondary endpoints were distant DFS (DDFS) and overall survival (OS). The potential risk factors biological subtype, histological tumour type, grading, clinical cT and cN status, Ki-67, age, BMI, planned number of cycles of chemotherapy, menopausal status, clinical response after 2-4 cycles as well as study identification were included as covariates in multivariate Cox regression models. The two-sided significance level was set to $\alpha = 0.05$.

Results: From 2188 evaluable patients 290 DFS, 197 DDFS and 130 OS events were observed. The median follow-up over all studies was 59 months. Location of first relapse was locoregional in 129, distant in 134 and both in 23 patients. 1217 patients were included in multivariate analyses. DFS was significantly different with regard to the cN status (cN+ vs cN0 hazard ratio (HR)=1.70; [95%CI 1.2-2.4]; $p = 0.002$); a trend for worse DFS was seen for lobular tumour type (lobular vs other HR = 1.91 [95%CI 0.9-4.0]; $p = 0.076$) and cT status (cT3/4 vs cT1 HR=1.61 [95%CI 1.0-2.7]; $p = 0.064$). Similar results were observed for DDFS. OS was significantly worse for cT3/4 tumours (cT3/4 vs cT1, HR = 2.48 [95%CI [1.1-5.7]; $p = 0.030$) and lobular tumour type (lobular vs other, HR = 2.85 [95%CI 1.1-7.2]; $p = 0.026$); a trend for worse OS was seen for cN + (cN+ vs cN0, HR = 1.67 95%CI [1.0-2.9]; $p = 0.067$).

Conclusions: Initial tumour load (tumour size and nodal status) and histological tumour type remained prognostic factors of long-term outcome even when a pCR was achieved.

Legal entity responsible for the study: GBG.

Funding: Has not received any funding.

Disclosure: A. Schneeweiss: Grants: Celgene, Roche, AbbVie, Molecular Partner; Personal fees: Roche, AstraZeneca, Celgene, Pfizer, Novartis, MSD, Tesaro, Lilly. C. Denkert: Shareholder and co-founder: Sividon Diagnostics; Honoraria/consultation: Teva, Novartis, Pfizer, Roche, Amgen, MSD, Daiichi, Celgene, AstraZeneca; Patent application: EP18209672 - Cancer immunotherapy. C. Hanusch: Personal fees: Novartis, Roche, Pfizer, Celgene, Amgen outside the submitted work. C. Jackisch: Personal fees: Roche, Celgene. M. Untch: Grants: AbbVie, Amgen, AstraZeneca, BMS, Celgene, Daiichi Sankyo, Eisai, Janssen-Cilag, Lilly, MSD, Myriad Genetics, Pfizer, Mundipharma, Odonate, Puma Biotechnology, Riemser, Sanofi, Sividon Diagnostics, Teva, Roche. All other authors have declared no conflicts of interest.