A randomised phase III trial comparing two intense dose-dense approaches (ETC and PM(Cb)) for neoadjuvant treatment of patients with high-risk early breast cancer (GeparOcto)


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Results

Two chemotherapy regimens are currently considered to be among the treatments with the highest efficacy in patients with high-risk early stage breast cancer: sequential treatment of intense dose-dense (idd) epirubicin (E), paclitaxel (T), and cyclophosphamide (ETC) mainly based on the AGO ETC adjuvant study3, and weekly treatment of paclitaxel in combination with non-pegylated liposomal doxorubicin (NPLD) and with a dual HER2-blockade for HER2-positive disease or carboplatin (Cb) for triple negative breast cancer (TNBC) (PM(Cb)) based on the GeparSixto study4. The aim of the GeparOcto study was to compare efficacy and safety of the ETC with PM(Cb) treatment regimen.

Materials and Methods

Trial design: GeparOcto (GBG 84; NCT02125344) was a multicentre, prospective, randomised, open-label phase III study. The study design is presented in Figure 1.

Statistical considerations: Sample size calculations assumed a pCR rate of 50% for ETC and 60% for PM(Cb), requiring 950 patients to show significant superiority (p<0.05) of PM(Cb) with 85% power. The significance level was set to a two-sided α=0.05. An amendment implemented conduction of a non-inferiority test in case the superiority test fails to detect a significant difference. The non-inferiority margin for pCR-rate difference was set to 5%.

Objectives

Primary objective: pCR defined as ypT0/is ypN0

Secondary objectives:
- pCR rates per arm separately for the stratified subpopulations (HER2+ HR- vs HER2- HR+ vs TNBC)
- Toxicity and compliance
- Loco-regional invasive recurrence free (LRRFS), distant-disease-free (DDFS), and overall survival (OS) in both arms and according to stratified subpopulations

Figure 1. Main study design

In high-risk early stage breast cancer patients, pCR (ypT0/is ypN0) rates of idd ETC compared to weekly PM(Cb) were not significantly different. Non-inferiority of PM(Cb) could not be shown. No significant difference was observed for pCR rates between the two treatment arms according to biological subtypes. PM(Cb) was associated with a higher rate of pneumonia and pneumonitis than ETC. PM(Cb) appeared to be less feasible for high-risk early stage breast cancer patients.

Conclusions

References


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