

171P Composite index of risk shows that benefit from adjuvant dose dense chemotherapy is not confined to triple negative breast cancer

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Background: Compared with the standard interval adjuvant chemotherapy, dose-dense schedule is proved to increase disease-free survival (DFS) in node-positive early breast cancer (EBC) patients (pts). To date, GIM2 is the only trial supporting the role of dose-dense chemotherapy in pts with hormone receptor-negative (HR-) or hormone receptor-positive tumours (HR+) (Del Mastro et al. Lancet 2015). To further refine the evidence of treatment effect in the HR+ subgroup, a composite index of risk was developed including clinico-pathological features.

Methods: The randomized phase III GIM2 trial enrolled 2091 pts with node-positive EBC (primary endpoint: DFS). A continuous, composite measure of treatment benefit was determined from a Cox model incorporating potential predictive factors (age: 25-40/41-55/56-71; histological grade: 1 + 2/3; HR status: positive/negative; ki-67 levels: ≤20%/>20%). Subpopulation treatment effect pattern plot methodology was used to reveal differential treatment effects on DFS according to composite index. The study analyzed the cohort of pts with HER2- (N = 1127) disease with a special focus on HR+ disease (N = 980).

Results: On average, the magnitude of benefit with dose dense chemotherapy versus standard chemotherapy widely varied according to composite measure of specific features. In the HER2- subgroup, the highest benefit was observed in pts with G3, HR-, >10 positive nodes, age <40 yrs, ki-67 > 20% (hazard ratio for DFS 0.57, 95% CI 0.35-0.94). Notably, among pts with HR+ disease, the following clinic-pathological characteristics conferred the highest benefit: G3, ≥4 positive nodes, age ≥56 yrs, ki-67 > 20% (hazard ratio for DFS 0.66, 95% CI 0.38-1.15).

Conclusions: Composite risk evaluation and corresponding subpopulation treatment effect pattern plot methodology suggest that benefit of dose dense adjuvant chemotherapy is not confined to triple negative EBC.

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