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# Adding carboplatin to presurgery chemo improved disease-free survival for patients with TNBC

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Adding carboplatin to presurgery chemotherapy improved disease-free survival for patients with triple-negative breast cancer (TNBC), according to results from the randomized phase II GeparSixto clinical trial presented at the 2015 San Antonio Breast Cancer Symposium, held Dec. 8-12.

"Chemotherapy given to shrink or eliminate a tumor before surgery is called neoadjuvant chemotherapy," said Gunter von Minckwitz, MD, president of the German Breast Group and a professor of gynecology at University of Frankfurt in Germany. "Previously published results from the GeparSixto clinical trial showed that adding carboplatin to anthracycline/taxane-based neoadjuvant chemotherapy increased the proportion of patients with TNBC who had a pathologic complete response [pCR], meaning that they had no residual (invasive or noninvasive) cancer detectable in breast tissue and lymph nodes removed during surgery, from 36.9 percent to 53.2 percent.

"Here we show that the improved pCR rates translated into improved disease-free survival," continued von Minckwitz. "Patients with TNBC who received carboplatin as part of their neoadjuvant chemotherapy regimen were almost half as likely to have had disease relapse at three years after starting treatment compared with those who did not receive carboplatin, and it was those patients who had a pCR who were least likely to have disease relapse."

According to von Minckwitz, these data support the use of carboplatin as a standard part of the neoadjuvant chemotherapy regimens used to treat patients with TNBC.

The researchers enrolled 315 patients with TNBC in GeparSixto, 50 of whom had known germline BRCA gene mutations. All patients received 18 weeks of neoadjuvant chemotherapy consisting of paclitaxel, non-pegylated-liposomal doxorubicin, and bevacizumab and were randomly assigned to concurrently receive weekly carboplatin or nothing extra.

After a median follow-up of three years, disease-free survival for patients assigned to carboplatin was 85.5 percent compared with 76.1 percent for patients assigned no carboplatin.

"We were very excited to see a statistically significant improvement in disease-free survival for patients who received carboplatin because the study is relatively small and would not have been powered to show the effects of carboplatin on survival if the differences had been smaller," said von Minckwitz. "Interestingly, the improvement for disease-free survival was observed predominantly for patients without a germline BRCA mutation, a group where we thought that platinum compounds are not active.

"Further studies are needed to investigate this, however, because there were only 50 patients who had a germline BRCA mutation in our study," von Minckwitz continued. "We might in this group just not see an existing effect of carboplatin or it could be there is no extra effect because of the high sensitivity of these patients to the other agents given."

Among the 129 patients with TNBC who had a pCR, five had disease relapse after a median follow-up of three years, compared with 50 of 162 patients who did not have a pCR.

"These pCR data are important for the research community," said von Minckwitz. "They show that the effect of carboplatin on disease-free survival was correctly predicted by its effect on pCR and they add to the evidence that suggests that pCR can be a surrogate for clinical benefit if the effects of an investigational agent on pCR are large."

**More information:** Abstract: S2-04: Title: Early survival analysis of the randomized phase II trial investigating the addition of carboplatin to neoadjuvant therapy for triple-negative and HER2-positive early breast cancer (GeparSixto)

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