

Combination therapy for triple-negative breast cancer disappointing

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Lisa A. Carey, MD

(Medical Xpress) -- A recent clinical trial testing a combination therapy for basal-like (also known as triple-negative) breast cancer demonstrates that a combination of two drugs with promising preclinical results is not as effective as researchers had hoped.

“This trial tested a drug that inhibits the Epidermal growth factor receptor (EGFR) in combination with a standard therapy for Stage IV triple-negative breast cancer,” said Lisa A. Carey, MD, who led the study. Carey is the Preyer Professor of Breast Cancer Research and medical director of the UNC Breast Center. She also serves as Associate Director for Clinical Research at UNC Lineberger Comprehensive Cancer Center.

“While we were disappointed that the combination of cetuximab plus carboplatin produced responses in fewer than 20 percent of the patients, the study provides important data about how cancers can resist EGFR

inhibition and provides direction for future research,” she added.

The results were published in the *Journal of Clinical Oncology*.

The randomized phase II trial enrolled 102 patients with Stage IV triple-negative breast cancer. Some patients received the [combination therapy](#) from the beginning of the trial and others received it only if their disease continued to progress. The investigators chose EGFR inhibition triple negative breast cancer is that in laboratory studies, this kind of breast cancer is dependent on EGFR for growth.

Phase II trials are the first step in evaluating both the safety and efficacy of new drugs or new drug combinations. In [clinical trials](#) for patients with cancer, new treatments are tested in addition to or in combination with the standard of care. But sometimes just watching the tumors isn’t enough. “Because we were able to do laboratory studies examining the effect of the [drug](#) on the patients’ tumors both before and after therapy, we gained important insight about the genetic patterns of the EGFR pathway in these tumors and their response to therapy,” Carey said.

“Triple-negative breast cancer remains difficult to treat but with each clinical trial we learn more about how these tumors work that allows us to develop smarter approaches to treatment,” she added.

Multiple research projects – including several studies conducted at the University of North Carolina at Chapel Hill – have used DNA microarray analysis to identify biologically different breast cancer subtypes, including luminal A, luminal B, basal-like and HER2-enriched. Simple tests are being developed to help doctors identify these subtypes and to treat their [patients](#) in a more biologically-based way. In the UNC Gillings School of Global Public Health-based Carolina Breast Cancer Study, researchers found that the basal-like, or triple negative breast cancer, affects African American women far more than white women. It

is likely that this plays a role in racial differences in [breast cancer](#) survival.

More information: Other members of the research team included Anastasia Ivanova, PhD, Wing-Keung Chio, MS, Madlyn Ferraro, RN, Emily Burrows, MPH, Katherine A. Hoadley, PhD, and Charles M. Perou, PhD, from the University of North Carolina at Chapel Hill; P. Kelly Marcom, MD, from Duke University; Hope S. Rugo, MD, from the University of California at San Francisco; Erica L. Mayer, MD, and Eric P. Winer, MD, from the Dana-Farber Cancer Institute; Francisco J. Esteva, MD; from the University of Texas MD Anderson Cancer Center; Mothaffar F. Rimawi, MD, from Baylor University College of Medicine; Cynthia X. Ma, MD, from Washington University in St. Louis; Minetta C. Liu, MD, from Georgetown University; Anna Maria Storniolo, MD, from Indiana University; Andrew Forero-Torres, MD, from the University of Alabama, Birmingham; Antonio C. Wolff, MD, from Johns Hopkins University; Timothy J. Hobday, MD from the Mayo Clinic; and Philip S. Bernard, PhD, from the University of Utah.

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