

# **Adding capivasertib to fulvestrant improves progression-free survival of hormone receptor-positive breast cancer**

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In patients with hormone receptor (HR)-positive, HER2-negative tumors resistant to aromatase inhibitors, addition of the investigational AKT

inhibitor capivasertib to fulvestrant (Faslodex) doubled the median progression-free survival compared with placebo plus fulvestrant in the phase III CAPItello-291 clinical trial, according to results presented at the San Antonio Breast Cancer Symposium, held December 6-10, 2022.

Patients with HR-positive, HER2-negative breast cancer are commonly treated in the first line with an endocrine therapy—such as an [aromatase inhibitor](#), which blocks the production of estrogen—alongside a CDK4/6 inhibitor, which stalls the cell cycle. Eventually, however, most tumors develop resistance to these therapies, and options for further treatment are limited.

"After progression on CDK4/6 inhibitors, further endocrine therapies given alone have relatively low efficacy," said Nicholas Turner, MD, Ph.D., a professor of molecular oncology at The Institute of Cancer Research, London, and a consultant medical oncologist at The Royal Marsden NHS Foundation Trust, who presented the study. "We need new treatment options for these patients."

Many HR-positive, HER2-negative breast cancers also harbor genetic alterations in AKT pathway genes, such as AKT, PIK3CA, and PTEN, which promote [tumor growth](#) and have been implicated in the development of endocrine resistance. While the PI3K inhibitor alpelisib (Piqray) was approved by the U.S. Food and Drug Administration (FDA) in 2019 to treat patients with PI3K-mutated breast cancer, more treatments targeting this pathway are needed, said Turner.

Turner and colleagues conducted the phase III CAPItello-291 trial to determine whether the addition of the potential first-in-class AKT inhibitor capivasertib to [fulvestrant](#) would improve outcomes in patients with HR-positive breast cancer whose tumors had developed resistance to an aromatase inhibitor. The researchers randomly assigned 355 patients to receive capivasertib plus fulvestrant and 353 patients to

receive a placebo plus fulvestrant.

Patients treated with capivasertib plus fulvestrant had a [median progression-free survival](#) of 7.2 months, compared to 3.6 months in patients treated with placebo plus fulvestrant. This amounted to a 40 percent lower risk of progression among patients who received capivasertib plus fulvestrant. The objective response rate was 22.9 percent among patients treated with capivasertib plus fulvestrant, compared with 12.2 percent for patients treated with placebo plus fulvestrant.

Overall, 41 percent of patients assigned to treatment had tumors with AKT pathway mutations. Among patients with AKT pathway mutations treated with capivasertib plus fulvestrant, the median [progression-free survival](#) was 7.3 months, and the objective response rate was 28.8 percent. Among patients with AKT pathway mutations treated with placebo plus fulvestrant, the median progression-free survival was 3.1 months, and the objective response rate was 9.7 percent.

The most common adverse events of grade 3 or higher among patients treated with capivasertib plus fulvestrant were rash (12.1 percent), diarrhea (9.3 percent), and hyperglycemia (2.3 percent). The rate of discontinuation due to adverse events was 13 percent among patients who received capivasertib plus fulvestrant and 2.3 percent among patients who received placebo plus fulvestrant. The adverse events profile, Turner said, was manageable and consistent with data from previous studies.

"The improvement in progression-free survival with relatively well-tolerated side effects is extremely encouraging," Turner said. "We are hopeful that capivasertib will become a new treatment option for patients whose cancer has progressed on a regimen containing an [endocrine therapy](#)."

Limitations of this study include immature overall survival data.

**More information:** Conference: [www.sabcs.org/2022-SABCS](http://www.sabcs.org/2022-SABCS)

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