

Gene mutation's benefit for ovarian cancer patients may not last: study

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Photo courtesy: Bill Branson, U.S. National Cancer Institute

Women with BRCA variant found to have better 3-year survival, but advantage fades by 10-year mark.

(HealthDay)—Although women diagnosed with ovarian cancer who carry a BRCA gene mutation have a short-term survival advantage, this benefit is not reflected in the long-term, according to a new study.

"Of those women diagnosed with invasive [ovarian cancer](#) in the United States and Canada, approximately 35 percent are expected to be long-term survivors and ultimately cured," Thomas Sellers, director of the Moffitt Cancer Center in Tampa, Fla., said in a center news release. "We sought to estimate the 10-year survival for women with ovarian cancer—with and without the mutations—to determine whether or not the observed short-term survival benefit for those with the mutations was

associated with a better prospect for cure."

In conducting the study, the researchers examined the long-term survival of more than 1,600 women with a [BRCA1](#) or BRCA2 [gene mutation](#) diagnosed with invasive ovarian cancer. The women were followed for up to 15 years.

In the three years after a diagnosis of invasive ovarian cancer, the researchers found a [BRCA gene](#) mutation was linked to a better prognosis. For women without a BRCA mutation, the most deaths occurred about two years after they were diagnosed. For mutation carriers, however, the most deaths occurred about 3.5 years after diagnosis. The researchers suggested this could reflect a short-term survival advantage for BRCA carriers.

A decade after diagnosis, though, that benefit seemed to have faded, and BRCA gene mutation carriers had no survival benefit, revealed the study published recently in the [Journal of the National Cancer Institute](#).

"Our results on long-term survival differed somewhat from those in earlier studies that found a short-term survival advantage for women with [BRCA mutations](#)," said Dr. Tuya Pal, an associate member of the Moffitt cancer epidemiology program, in the news release. "However, our results for short-term survival were similar to previous studies. Our study found the survival advantage at five years for women with stage 3 cancers at 55 percent for BRCA1 and BRCA2 mutation carriers combined, versus 39 percent for non-carriers."

The researchers said more studies are needed to investigate how new treatments for BRCA mutation carriers with ovarian cancer will affect their long-term survival.

"We believe there is insufficient evidence to counsel women with

ovarian cancer and a BRCA mutation that they should expect their long-term survival to be better than that of non-carriers, or that tailored treatments reflect the differences in survival," the study's authors wrote.

The researchers noted that only one of the 309 women who survived more than 12 years after being diagnosed died within the study time frame. They suggested that a 12-year survival "seems a reasonable surrogate for cure."

An inherited BRCA gene mutation is carried by 13 percent of women with ovarian cancer, according to the release. These women have a lifetime risk of up to 44 percent for developing the disease. In contrast, the risk of ovarian cancer for the general population is just 2 percent.

More information: The U.S. National Cancer Institute provides facts on [BRCA1 and BRCA2 gene mutation](#).

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