

Ashkenazi ovarian cancer patients with BRCA mutations live longer than those with normal gene

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Israeli investigators have found that Ashkenazi Jewish women with ovarian cancer who have mutations in the BRCA1 or BRCA2 genes lived significantly longer than Ashkenazi Jewish ovarian cancer patients without these mutations. After up to nine years of follow-up, BRCA1/2 mutation carriers were 28 percent less likely to die from the disease, even though women with the BRCA mutations are significantly more likely to develop ovarian and breast cancers. The study is being published January 1 in the Journal of Clinical Oncology (JCO).

“These findings are encouraging news for BRCA mutation carriers,” said Siegal Sadetzki, MD, MPH, head of the Cancer & Radiation Epidemiology Unit at the Gertner Institute, Chaim Sheba Medical Center in Tel Hashomer, Israel and the study’s senior author. “It’s possible that patients with these mutations respond better to chemotherapy – hopefully, once we learn more about the mechanisms of this response, tailoring individual treatment will further improve survival.”

Normal BRCA1/2 genes control cell growth. Mutations in these genes, which are more common among Ashkenazi Jewish women (Jewish women of Eastern European descent) than in the general population, increase the risk of breast and ovarian cancers.

In one of the largest studies of this topic to date, the researchers from

the National Israeli Study of Ovarian Cancer compared five-year survival between 213 Ashkenazi ovarian cancer patients with BRCA1/2 mutations (“carriers”) and 392 Ashkenazi ovarian cancer patients without the mutations (“non-carriers”).

After five years, 46 percent of the carriers were still alive, compared with 34.4 percent of the non-carriers. Median survival was 53.7 months for carriers and 37.9 months for non-carriers. The differences in survival were most pronounced for women diagnosed with more advanced disease (stage III or IV), with five-year survival rates of 38.1 percent for carriers and 24.5 percent for non-carriers. These findings persisted after controlling for other factors that influence ovarian cancer survival, such as patient age and some biological features of the tumor.

The researchers also analyzed ovarian cancer survival according to whether women had a BRCA1 or a BRCA2 mutation. Women with BRCA1 mutations lived a median of 45.1 months, and women with BRCA2 mutations lived a median of 52.5 months.

Source: American Society of Clinical Oncology

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