Website address:
https://www.gesundheitsindustrie-bw.de/en/article/press-release/researchers-recommend-earlier-start-breast-cancer-screening-family-history-ovarian-cancer

Researchers recommend earlier start of breast cancer screening with family history of ovarian cancer

Women have an increased risk of breast cancer if they have a family history of this disease. However, the risk may also be higher if first-degree family members have another type of cancer, according to a study by a team of scientists and physicians from the National Center for Tumor Diseases (NCT) Heidelberg, the German Cancer Research Center (DKFZ) and Heidelberg University Hospital (UKHD), as well as international colleagues. This became particularly clear that when ovarian cancer occurred in the family, the breast cancer risk was 1.4 times the usual risk value. If ovarian cancer was diagnosed in a relative before the age of 50, the risk even increased by 1.7 times. The researchers therefore recommend starting mammography a few years earlier than usual for women with family history of ovarian cancer.

Breast cancer is the most common cancer worldwide and the leading cause of cancer death in women. If doctors detect breast carcinoma at an early stage, this can reduce breast cancer mortality. That is why early detection programs are recommended - especially to those women who are at increased risk for breast cancer. This can be the case, for example, if first-degree family members - i.e. the mother, sister or daughter - have already had breast cancer.* The risk of breast cancer is then about twice as high as that of the general population.

In a recent study, scientists from the NCT Heidelberg, DKFZ an UKHD, led by Dr. Mahdi Fallah and Dr. Elham Kharazmi, investigated how exactly other cancers in the family affect the risk of breast cancer in women. Analysis of the results shows that risk can increase even if first-degree family members had cancers other than breast cancer. However, for 14 of the 33 cancers studied, the risk is only slightly increased - between 1.1-fold (prostate cancer) to 1.2-fold (soft tissue cancers). For 17 other cancers that occurred in the family, the breast cancer risk does not change significantly.

A family history of ovarian cancer is an exception: Women whose mother, sister, or daughter was affected by this cancer also have only a 1.2-fold higher risk of developing breast cancer than the general population. The risk of breast cancer before the age of 50 is however 1.4 times higher. Moreover, if ovarian cancer was also diagnosed in relatives before the age of 50, the risk of early-onset breast cancer increases to even 1.7-fold.

In Germany, women between the ages of 50 and 69 can have a free mammogram every two years. "We advise that if you have a family history of ovarian cancer, you should start breast cancer screening four years earlier than is usual in this country - that is, as early as age 46 instead of 50," Fallah says. This recommendation is based on the so-called 10-year cumulative risk: among 50-year-old women, the average risk of developing breast cancer in the next ten years is 2.2 percent. According to the study, women with the described family history of ovarian cancer reach this risk value four years earlier. For the other cancers, the slightly increased risk did not justify an earlier start of screening exams, the authors said.

For their study, the researchers led by Fallah and Kharazmi analyzed data sets from more than five million Swedish women born after 1931, making the investigation the largest of its kind to date. The data sets consist of pedigree data linking the women studied to their parents, children and their descendants, as well as Swedish Cancer Registry data since 1958. The information is updated every two to three years. In total, the Swedish registries include pedigree data on more than 12.8 million people, about 1.7 million records of advanced cancers and about half a million cases of early-stage carcinomas. At this scale, the data set is unique in the world.

Original publication:

T. Mukama, E. Kharazmi, K. Sundquist, J. Sundquist, and M. Fallah (2021) Risk-adapted starting age of breast cancer screening in women with a family history of ovarian or other cancers: A nationwide cohort study. Cancer, https://doi.org/10.1002/cncr.33456.

* https://doi.org/10.1001/jamaoncol.2019.3876

Press release

11-Mar-2021
Source: NCT Heidelberg

Further information

Dr. Friederike Fellenberg
National Center for Tumor Diseases Heidelberg (NCT) Heidelberg
Kommunikation und Veranstaltungen
Im Neuenheimer Feld 460
69120 Heidelberg
Phone: +49 (0)6221 421755
E-mail: friederike.fellenberg(at)nct-heidelberg.de

- National Center for Tumor Diseases (NCT) Heidelberg
- German Cancer Research Center (DKFZ), Heidelberg
- University Hospital Heidelberg