

Guess what? Breast cancer is NOT a 'Jewish disease'

Experts bust the myth that the disease is heavily linked to Ashkenazi heredity.

By Judy Maltz | 16:10 03.04.14 | 0

Contrary to widely held beliefs, breast cancer is not a “Jewish disease,” according to leading international experts who took part Wednesday in a cancer-research conference organized by Soroka Medical Center in Be'er Sheva. Experts also dispelled the notion that certain genetic mutations associated with the illness are more common among Ashkenazi women.

“There’s a myth that this is a Jewish issue,” Professor Larry Norton told Haaretz, “But that’s ridiculous.”

Mutations in the BRCA1 and BRCA2 genes, which cause a predisposition to breast and ovarian cancers, are often referred to collectively as the “Ashkenazi gene” because they are thought to occur more commonly in Jewish women of Eastern European descent.

That is a common misconception, though, at least in the case of one of these mutations, according to Norton, who is deputy physician-in-chief for breast cancer programs at Memorial Sloan Kettering Cancer Center in New York.

“We’re finding BRCA1 all over the world in populations that have no connection to Jewishness whatsoever,” he said.

The reason these mutations are believed to be more common among Jewish women, said Norton, is that Jewish women tend to participate more actively in breast cancer studies. “It’s particularly true in New York, where we’ve done a lot of these studies, and where Jewish women have been wonderful about volunteering for them,” he noted. Norton also serves as the medical director of the Evelyn H. Lauder Breast Center at Sloan Kettering.

Although the incidence of BRCA mutations is high among Jewish women, he said, that does not necessarily mean it is higher among Jews than among other populations. “That is something that still remains to be determined because some of the other populations are harder to define in terms of genetic history and just not as well studied,” he said.

Professor Kenneth Offit, the director of clinical genetics at Sloan Kettering and another participant at the conference, said it was a prevailing misconception that breast cancer rates were higher in Israel than elsewhere, because of the country’s large concentration of Ashkenazi Jews. “The reality is that breast cancer rates are no higher – in fact, they’re lower – in Tel Aviv than they are in Paris or in Brussels,” he told Haaretz.

Indeed, according to figures published by the World Cancer Research Fund in the U.K., the incidence of breast cancer in Israel (80.5 cases for every 100,000 women) is below that in many other Western countries, including the United States, the U.K., Germany, France, Italy and Australia. The highest incidence of breast cancer, according to this list, is found in Belgium (111.9 cases for every 100,000 women), with Israel ranked in 21st place out of 50 countries.

Offit headed the medical team that discovered the mutation in the BRCA2 gene in 1996. It is a mutation, he said, that occurs in about 1 percent of all Ashkenazi women. “It’s a common misconception that the BRCA gene is a ‘Jewish’ gene,” he noted. “Certain mutations are common in different groups, and we see mutations that are very common, for example, in Iceland and in Scandinavian countries that are isolated geographically – similar to the situation with the Ashkenazi Jewish population, which was isolated not as an island but as a people in the middle of Europe for centuries.”

Although the BRCA2 gene mutation is most common among Ashkenazi Jews, he said, the BRCA1 mutation is also found among Sephardi Jews and other non-Jewish populations.

Although the BRCA genes have been implicated in breast cancer, the main drivers of the disease are lifestyle, and other factors that change from culture to culture, says Offit.

Professor Eitan Friedman, director of the oncogenetics unit at Sheba Medical Center in Tel Aviv, said that while breast cancer was not “an affliction of the Jewish people,” Israeli women had become increasingly open in recent years to the option of risk-reducing mastectomies, taking their cue from women in other western countries.

When he began gathering statistics on what is known as prophylactic surgery in 2007, only about 4 percent of Israeli women who carried genetic mutations associated with breast cancer chose to have their breasts removed before any cancer had been discovered. The last time such figures were gathered, about six months ago, the percentage had risen to 13 percent. “Years ago, when I’d mention this possibility to mutation carriers, they’d cringe,” he said. “Today, there’s much more acceptance.”

In the United States, Friedman noted, anywhere from 25 to 50 percent of women who are BRCA mutation carriers opt for risk-reducing mastectomies, as did the actress Angelina Jolie, causing an international stir with her decision last year. In Sweden, the rate is as high as 80 percent, whereas in Poland, it is less than 3 percent.

The one-day cancer research conference at Soroka was organized in conjunction with Sloan Kettering and with the support of the Cure Breast Cancer Foundation. Among the subjects explored were the connections between cancer and obesity, cancer and genetics, and cancer and bone health.