

Women with BRCA mutations can take hormone-replacement therapy safely after ovary removal

June 1 2011

Women with the BRCA1 or BRCA2 gene mutations, which are linked to a very high risk of breast and ovarian cancer, can safely take hormone-replacement therapy (HRT) to mitigate menopausal symptoms after surgical removal of their ovaries, according to new research from the Perelman School of Medicine at the University of Pennsylvania which will be presented Monday, June 6 during the American Society for Clinical Oncology's annual meeting (Abstract #1501). Results of the prospective study indicated that women with BRCA mutations who had their ovaries removed and took short-term HRT had a decrease in the risk of developing breast cancer.

Research has shown that in women who carry the [BRCA mutations](#), the single most powerful risk-reduction strategy is to have their ovaries surgically removed by their mid-30s or early 40s. The decrease in [cancer risk](#) from ovary removal comes at the cost of early menopause and [menopausal symptoms](#) including hot flashes, [mood swings](#), [sleep disturbances](#) and vaginal dryness – quality-of-life issues that may cause some women to delay or avoid the procedure.

"Women with BRCA1/2 mutations should have their ovaries removed following child-bearing because this is the single best intervention to improve survival," says lead author Susan M. Domchek, MD, an associate professor in the division of Hematology-Oncology and director of the Cancer Risk Evaluation Program at Penn's Abramson Cancer

Center. "It is unfortunate to have women choose not to have this surgery because they are worried about menopausal symptoms and are told they can't take HRT. Our data say that is not the case – these drugs do not increase their risk of [breast cancer](#)."

Senior author Timothy R. Rebbeck, PhD, associate director of population science at the Abramson Cancer Center, notes that BRCA carriers may worry – based on other studies conducted in the general population showing a link between HRT and elevated cancer risk – that taking HRT may negate the effects of the surgery on their breast cancer risk. The message he hopes doctors will now give to women is clear: "If you need it, you can take short-term HRT. It doesn't erase the effects of the oophorectomy."

In the current study, Domchek, Rebbeck, and colleagues followed 795 women with BRCA1 mutations and 504 women with BRCA2 mutations who have not had cancer enrolled in the PROSE consortium database who underwent prophylactic oophorectomy, divided into groups of those who took HRT and those who did not. Women who underwent prophylactic oophorectomy had a lower risk of breast cancer than those who did not, with 14 percent of the women who took HRT after surgery developing breast cancer compared to 12 percent of the women who did not take HRT after surgery. The difference was not statistically significant.

Domchek says some of the confusion about the role of HRT in cancer risk elevation comes from the fact that the risks and benefits associated with HRT depend on the population of women studied. In this group of women – who have BRCA1/2 mutations and who have had their ovaries removed while they are quite young – HRT should be discussed and considered an option for treating menopausal symptoms. "People want to make [hormone replacement therapy](#) evil, so they can say 'Don't do it,'" she says. "But there isn't one simple answer. The devil is in the details of

the studies."

By contrast, Penn researchers and their collaborators in the PROSE consortium have shown definitively that oophorectomy reduces ovarian and breast cancer incidence in these women, and reduces their mortality due to those cancers. But paying attention to the role that hormone depletion following preventive oophorectomy plays in women's future health is also important.

"We know for sure that using HRT will mitigate menopausal symptoms, and we have pretty good evidence that it will help bone health," she says. "Women need to be aware that going into very [early menopause](#) does increase their risk of bone problems and cardiovascular problems. And even if they aren't going to take HRT, they need to be very attentive to monitoring for those issues. But they also need to know that HRT is an option for them and to discuss it with their doctors and other caregivers."

ASCO Abstract #1501: Is hormone replacement therapy (HRT) following risk-reducing salpingo-oophorectomy (RRSO) in [BRCA1](#) (B1)- and BRCA2 (B2)-mutation carriers associated with an increased risk of breast cancer?

Domchek will present these findings during the Cancer Prevention/Epidemiology Oral Abstract Session from 3:15 PM - 3:30 PM CST on Monday, June 6 in McCormick Place S100bc.

Provided by University of Pennsylvania School of Medicine

Citation: Women with BRCA mutations can take hormone-replacement therapy safely after ovary removal (2011, June 1) retrieved 4 May 2024 from <https://medicalxpress.com/news/2011-06-women-brca-mutations-hormone-replacement-therapy.html>

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