DEUTSCHES KREBSFORSCHUNGSZENTRUM IN DER HELMHOLTZ-GEMEINSCHAFT

No. 32 28 May 2008 (Koh)

Long-Term Hormone Replacement Therapy Increases Breast Cancer Risk Results Confirmed for Germany As Well

Now there is proof for women in Germany, too: If hormone replacement therapy is taken over a period of more than five years, the risk of breast cancer will increase. While this risk is considerably elevated during use of hormone medication, it drops back to the original level within about five years after a woman has stopped taking hormones. This is the result of a study by the German Cancer Research Center (Deutsches Krebsforschungszentrum, DKFZ) in Heidelberg and the University Hospitals of Hamburg-Eppendorf. The study was financed by the German Cancer Aid (Deutsche Krebshilfe) with funds of 2.7 million euros.

“Are you taking or did you take hormones? If yes, which hormone medication and for how long? When did you stop taking hormone replacement medication?” 3,464 breast cancer patients and 6,657 healthy women between the ages of 50 and 74 years participated in a large survey and elicited detailed information about hormone replacement medications they are taking or used to take for relief of menopausal symptoms. The survey was prompted by the “MARIE” case-control study carried out by the German Cancer Research Center (DKFZ) and the University Hospitals in Hamburg-Eppendorf, Germany. The goal of this 6-year study, which was financed by the German Cancer Aid (Deutsche Krebshilfe), was to determine the effect of hormones – both on their own and in association with other factors – on breast cancer risk.

Women who have taken menopausal hormone therapy before have a 37 percent higher risk of breast cancer than women who have never taken hormone replacement therapy (HRT). During the actual time of HRT use the risk is even elevated by 73 percent. Within five years after cessation of therapy the risk of breast cancer in former HRT users falls back to the level of women who never used HRT. “These results of the MARIE study confirm findings of two U.S. and U.K. studies (Women’s Health Initiative Study and Million Women Study) that caused a stir in 2002 and 2003,” says Professor Dr. Wilhelm Braendle of Hamburg-Eppendorf University Hospitals, who headed the study.

“It has often been argued that the results of the U.S. study could not be applied to Germany where prescription practices are completely different. Therefore, we captured the various hormone preparations, especially the various progestins, very precisely. We have obtained similar results as the U.S. researchers,” Professor Dr. Jenny Chang-Claude of DKFZ summarizes. “With our new data, we provide physicians in Germany with solid information that will help them to advise their patients about the benefits and risks of hormone replacement therapy.”

The MARIE study also confirms that different hormone preparations have different effects: Compared to the risk of women who have never used HRT, a combined therapy of estrogen and progestin doubles the risk of breast cancer, while use of estrogen alone (estrogen replacement therapy) raises the risk by only 15 percent. However, in both cases the risk increases only if hormones are taken for more than five years.

“Hormone replacement therapy also appears to have a different influence on different types of breast cancer,” Braendle explains. “The risk of developing one of the less common lobular or tubular breast cancers increases twice as much under HRT as the risk of the common type of ductal carcinoma, which constitutes 40 to 75 percent of all malignant tumors of the breast.”

Dieter Flesch-Janys, Tracy Slanger, Elke Mutschelknauss, Silke Kropp,Nadia Obi, Eik Vettorazzi, Wilhelm Braendle, Gunter Bastert, Stefan Hentschel, Jürgen Berger, and Jenny Chang-Claude: Risk of Different Histological Types of Postmenopausal Breast Cancer by Type and Regimen of Menopausal Hormone Therapy. International Journal of Cancer 2008, DOI 10.1002/ijc.23655