Estrogen-Only HT Tied to Higher Asthma Risk

BY JENNIE SMITH

Estrogen-only hormone therapy has been shown to increase the risk of developing asthma after menopause by 54% among postmenopausal women compared with those who have never been treated with HT, according to data from a health survey of French women.

Researchers at the National Instituto of Public Health, Cuernavaca, Mexico, and INSERM and the Université Paris-Sud, France, used data from the E3N cohort, a health survey of nearly 100,000 French women who were born between 1925 and 1950.

The women, mostly teachers, responded to biannual questionnaires between 1990 and 2002 (Thorax 2010 Feb. 8 [doi:10.1136/thx.2009.116079]).

Of the 57,664 women who were free of asthma at menopause, just under two-thirds used some sort of HT, and 569 were later diagnosed with asthma.

The study, which was led by Dr. Isabelle Romieu of the Mexican institute, found that "the increased risk of asthma onset among women using [HT] was present only in users of estrogen alone [hazard ratio 1.54]. The effect was observed only in recent users including current users and women for whom time since last use was less than 1.5 years."

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Moreover, the authors wrote, "Fifty-eight percent of women reporting the use of estrogen alone at the time of asthma onset or as last treatment before asthma onset had previously used another [HT]. This supports our finding that the increased risk of asthma onset is linked to estrogen use."

The authors found that the risk of developing asthma increased to 80% and 86% (hazard ratios of 1.80 and 1.86), respectively, among postmenopausal women who were treated with estrogen-only HT who never smoked or had a history of allergies before menopause, compared with women who were untreated.

The authors cautioned, however, that the allergy histories were self-reported and that potential misclassifications of allergic disease could have occurred.

The apparently lower susceptibility of HT-treated women who smoke or have smoked to postmenopausal asthma had been noted in earlier studies, Dr. Romieu and her couthors wrote.

"This might be due to the antioestrogenic effect of smoking or to the difficulty of isolating the additional effect of [HT] among smokers," they noted.

Female hormones have long been suspected of playing a role in the development of asthma, and the connection between HT and postmenopausal asthma had been investigated in a large-scale U.S. study published several years ago (Arch. Int. Med. 2004;164:379-86).

That study determined that recent HT treatment was linked to an increased risk of postmenopausal patients developing asthma. But the study found the risk to be similar whether patients were treated with estrogen only or with a combination of estrogen and progestin.

As a possible explanation for the disparity, Dr. Romieu and her colleagues offered the fact that French and American physicians generally use different ratios of estrogen and progestin, as well as different types of progestin, in HT treatment regimens.

Also in contrast to the earlier U.S. study, Dr. Romieu's team of investigators did not observe interactions between body mass index and risk of asthma among HT and non-HT patients following menopause, but they indicated that this may have been because the French cohort presented leaner body mass as a whole.

The study investigators reported no financial conflicts of interest. ■