In young hysterectomized women, does unopposed estrogen therapy increase overall survival?

Yes. Between 2002 and 2011, a minimum of 18,601 and as many as 91,610 excess deaths occurred among hysterectomized US women aged 50 to 59 years, according to this analysis. These deaths were attributed to the avoidance of estrogen therapy (ET) in the years following publication of the initial findings of the Women’s Health Initiative (WHI).


During the 1990s, more than 90% of hysterectomized women aged 50 to 59 years used ET following the procedure. When the initial findings of the WHI were published in 2002, they prompted many women to refuse or discontinue ET—despite the fact that the initial findings concerned the use of estrogen and progestin in combination in women with an intact uterus. Today, only some 30% of women use ET after hysterectomy.

When findings from the WHI estrogen-only arm were eventually published, they revealed that ET reduces mortality among women 50 to 59 years old, compared with placebo. Although most of the reduction in mortality relates to fewer deaths from coronary heart disease, a decline in deaths from breast cancer also was seen.

Sarrel and colleagues calculated the excess mortality among US women aged 50 to 59 that could have been prevented by ET during the decade from 2002 through 2011. Their estimates ranged from approximately 19,000 deaths to as many as 92,000 deaths.

By calling attention to the negative health consequences of estrogen avoidance in young hysterectomized women, Sarrel and colleagues have performed a valuable public service.

Plethora of WHI data may have contributed to confusion

The WHI clinical trials have produced a plethora of data, and the interpretation of these findings can be difficult. The WHI estrogen-only arm was especially complicated, as it was unclear whether ET reduces mortality in women with an intact uterus.

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numerous analyses in various subsets of women. The sheer volume of data may be daunting in some cases, and likely has led to a failure to distinguish between estrogen-only and estrogen-progestin therapy, which have very different safety profiles.

Further, some clinicians and many patients have overlooked the fact that the risk-benefit profile of hormone therapy (both estrogen-only and estrogen-progestin therapy) is more favorable in younger, recently menopausal women than it is in older women.

I encounter evidence of this unwarranted fear of ET in my practice, with highly symptomatic, recently menopausal women who are appropriate candidates for hormone therapy electing to refuse the most effective treatment for menopausal symptoms.

Of course, hormone therapy, like all medications, has risks as well as benefits. For example, oral ET increases the risk of venous thrombosis and stroke, and long-term use of estrogen-progestin therapy increases the risk of breast cancer. However, the overblown fears of estrogen therapy have caused many appropriate candidates to miss out on symptom relief, prevention of osteoporosis, and treatment of symptomatic genital atrophy.

References