Effects of hormone therapy on health related quality of life in postmenopausal women with CAD differed according to presence of menopausal symptoms

Hlatky MA, Boothroyd D, Vittinghoff E, et al, for the HERS Research Group. *Quality-of-life and depressive symptoms in postmenopausal women after receiving hormone therapy: results from the Heart and Estrogen/Progestin Replacement Study (HERS) trial.* JAMA 2002 Feb 6;287:591-7

QUESTION: Does hormone therapy (HT) improve health related quality of life (HRQL) in postmenopausal women with coronary artery disease (CAD)?

Design

Randomised [allocation concealed]*, blinded {patients, clinicians, and outcome assessors}* placebo controlled trial with follow up to 3 years.

Setting

Outpatient and community settings in 20 clinical centres in the US.

Patients

2763 postmenopausal women <80 years of age (mean age 67 y) with documented CAD (previous myocardial infarction [MI], >50% luminal narrowing of a major vessel on angiography, or a previous coronary revascularisation procedure). Exclusion criteria were MI or revascularisation procedure in the previous 6 months, previous hysterectomy, contraindications to HT, HT in the previous 3 months, or life threatening illness. 2762 patients (99.9%) were included in the analysis; 2246 (81%) had HRQL data for all time points (baseline, 4 mo, 1 y, and 3 y).

Intervention

1380 women were allocated to HT (0.625 mg of conjugated equine estrogens and 2.5 mg of medroxyprogesterone acetate [Prempro, Wyeth Ayerst, Radnor, PA]), and 1383 were allocated to placebo.

Main outcome measures

HRQL questionnaires assessing physical function (Duke Activity Status Index), energy/fatigue (4 item RAND scale), mental health (RAND Mental Health Inventory), and depressive symptoms (8 item scale by Burnam *et al*).

Main results

Analysis was by intention to treat. At 3 years, scores for physical function and energy/fatigue declined progressively in both groups. Patients who received HT had

faster reductions in physical function and a trend toward faster declines in energy/fatigue, but had greater improvements in depressive symptoms than did patients who received placebo (table). The groups did not differ for mental health (table).

Subgroup analysis based on presence of flushing symptoms at baseline showed that women with flushing (n=434) who received HT had improved mental health and depressive symptoms over 3 years, but did not differ from those who received placebo for physical function or energy/fatigue (table). Women with no flushing (n=2325) who received HT, however, had greater declines in physical function and energy/fatigue, but did not differ for mental health or depressive symptoms from those who received placebo.

Conclusions

In postmenopausal women with coronary artery disease, hormone therapy reduced physical function and energy but improved depressive symptoms overall. Hormone therapy improved emotional quality of life in women with flushing symptoms, but reduced physical quality of life in women with no flushing symptoms.

*Hulley S, Grady D, Bush T, et al. JAMA 1998;280:605-13.

Source of funding:
Wyeth-Ayerst Research.

For correspondence:
Dr M A Hlatky, Stanford University, School of Medicine, Stanford, CA, USA.
hlatky@stanford.edu

A modified version of this abstract appears in Evidence-Based Medicine and Evidence-Based Mental Health

Hormone therapy v placebo for postmenopausal women with coronary artery disease

Outcomes at 3 years	Mean change in scores (hormone therapy v placebo, p value)		
	All patients	Patients with flushing symptoms	Patients with no flushing symptoms
Physical function	-4.4 v -3.1†	-3.1 v -2.2, p=0.42	-4.2 v -3.3, p=0.04
Energy/fatigue	-4.6 v -3.0†	-2.3 v -2.4, p=0.99	-4.6 v -3.1, p=0.03
Mental health	-0.2 v -0.9†	+2.6 v -0.5, p=0.04	-0.6 v -1.1, p=0.40
Depressive symptoms	No data available†	-0.5 v +0.007, p=0.01	-0.08 v +0.06, p=0.08

†p Values not reported.

COMMENTARY

The issues surrounding HT have been conflicting and fraught with controversy for many years. Unfortunately, recent research has done little to clarify these issues for healthcare providers and patients. The aim of the study by Hlatky *et al* was to investigate quality of life issues in older, postmenopausal women using combined oestrogen and progestogen therapy as secondary prevention for CAD. The results are consistent with earlier studies in which depressive symptoms were improved with HT in older, postmenopausal women.^{1 2}

It is important to note that these study findings are highly specific and therefore should not be generalised to different age groups or patient populations. Study participants were older women with known or advanced heart disease only. Positive conclusions regarding HRQL were limited to women who had previously had postmenopausal symptoms of flushing.

The results are relevant to women's healthcare nurses and geriatric nurses working to educate patients about the risks and benefits of HT. Specifically, advanced practitioners who are able to prescribe HT can use these data when making decisions about which patients are appropriate candidates for treatment. The findings support the use of HT for mental health outcomes in postmenopausal women who have symptoms such as flushing. The effect of HT on the physical dimension of quality of life was generally negative. The results do not provide advanced practitioners with assistance when considering the prescription of HT for younger patients approaching menopause. Additional quality of life issues in menopause such as insomnia, sexual satisfaction, concentration, memory, and mood were not addressed in this study.

Cathy R Kessenich, ARNP, DSN
Associate Professor of Nursing, University of Tampa, Nurse Practitioner, Osteoporosis Testing Center, Tampa, Florida, USA

- Hilditch JR, Lewis J, Ross AH, et al. *Maturitas* 1996;24:177-84.
- Whooley MA, Grady D, Cauley JA. *J Gen Intern Med* 2000;15:535-41.