

## News Summary

### **P3-314: Estrogens do not protect against cardiovascular death for transsexuals**

Long-term estrogen use does not protect male-to-female transsexuals from death due to cardiovascular disease but does not appear to raise their overall death rate, a new study found. The results will be presented Friday at The Endocrine Society's 91st Annual Meeting in Washington, D.C.

"Treatment with hormones of the opposite sex is safe in the short term, but little was known about the longer-term effects," said study's lead author, Henk Asscheman, MD, PhD, a clinical researcher at Vrije University in Amsterdam, the Netherlands.

Physical transition from one sex to the other requires almost lifelong treatment with opposite-sex hormones, called cross-sex hormone therapy. Men who want female physical features must take estrogens, and female-to-male transsexuals need to use testosterone.

Asscheman and his colleagues followed up 1,330 transsexuals who received cross-sex hormone therapy for an average of about 15 years. They compared the number of deaths in their study population with the expected death rate by age and sex in the general population.

Male-to-female transsexuals receiving estrogens were more likely to die of heart disease and stroke between the ages of 40 and 64 than men of the same age in the general population. They had 1.8 times the risk of dying of coronary artery disease and twice the risk of dying of a stroke.

However, Asscheman said they have not yet analyzed how many of the transsexuals smoked cigarettes, a major risk factor for heart disease. In their clinical experience, more male-to-female transsexuals smoke than does the average population, he said.

"This increased cardiovascular death rate adds to recent research [in women] that estrogens are not cardioprotective and suggests that estrogen-alone treatment may even increase the risk of cardiovascular disease, especially in smokers," Asscheman said.

Overall, the male-to-female transsexuals receiving estrogen had a 46 percent higher death rate than would be expected in the general population, but this was due to causes that the authors considered unrelated to sex hormone treatment. Among the 25- to 39-year-olds, their higher death rate was due to increased numbers of suicide, drug-related deaths and AIDS. The suicide rate also was higher (eight times higher than expected) in the 40- to 64-year-old male-to-female transsexuals. Transsexuals already are known to have a higher rate of suicide before starting hormone therapy, and estrogen use is not associated with increased suicide rates in women, Asscheman said.

Female-to-male transsexuals in the study received testosterone in doses equivalent to those given to testosterone-deficient men. Compared with the general population, they did not have a higher risk of death up to age 65, the authors found. The number of subjects age 65 or older was too small to analyze.

"Testosterone treatment of female-to-male transsexuals appears reasonably safe," Asscheman said.

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