

## **Skin cholesterol content identifies artery risk**

*Thursday*, January 5, 2006

NEW YORK (Reuters Health) - Measuring skin tissue cholesterol content (Tc) is a noninvasive way to assess carotid intima-media thickness, a validated measure of asymptomatic atherosclerosis in adults.

"A noninvasive assay to measure skin Tc recently has become available for use in the outpatient setting as a cardiovascular risk prediction tool," Dr. James H. Stein and colleagues from the University of Wisconsin Medical School, Madison, write in the December issue of the American Heart Journal.

The researchers examined whether an association exists between skin Tc and carotid intima-media thickness after adjusting for cardiovascular risk factors in 81 consecutive patients (mean age 55.6 years) with no known vascular disease. Along with measurement of skin Tc, B-mode ultrasonography of the carotid arteries was also conducted.

The subjects had a mean skin Tc of 95.9 U. Patients in the highest quartile of Tc had significantly higher carotid intima-media thickness compared with those in the lowest quartile (0.874 mm versus 0.760 mm;  $p = 0.011$ ).

Multivariable analyses demonstrated a significant association between skin Tc and increased carotid intima-media thickness after adjusting for age, male sex, glucose, systolic blood pressure, total/high HDL cholesterol ratio, and use of lipid-lowering therapy (odds ratio = 1.590). A significant association remained between skin Tc and increased carotid intima-media thickness after adjustment for Framingham risk (odds ratio = 1.341).

"Skin Tc is a noninvasive marker that can help identify subclinical atherosclerosis in asymptomatic middle-aged adults, even after controlling for risk factors and cardiovascular disease risk predicted by the Framingham model," Dr. Stein and colleagues conclude. "Because skin Tc is easy to measure, it may be a useful office-based tool for cardiovascular risk prediction."

Am Heart J 2005;150:1135-1139.