Skin test helps assess heart disease risk

Calgary Herald
Wednesday, October 27, 2004
Page: A9
Section: News
Byline: Mario Toneguzzi
Column: Your Health: Trends - Discoveries
Source: Calgary Herald
Idnumber: 200410270127
Edition: Final
Story Type: News
Length: 430 words
Keywords: HEART DISEASE; MEDICAL RESEARCH; MEDICAL DRUGS
Illustration Type: Colour Photo
Illustration: Colour Photo: Ted Jacob, Calgary Herald / Dr. Milan Gupta, in Calgary for the Canadian Cardiovascular Congress, demonstrates a skin tissue cholesterol test.

Skin tests are being touted as a way for doctors to assess a patient's risk for coronary artery disease, according to research released at the Canadian Cardiovascular Congress in Calgary.

The accumulation of sterol in the skin tissues, specifically cholesterol, is measured non-invasively by the simple drop of a liquid on the hand.

"Our findings confirm previous clinical evidence that skin sterol provides new information about heart-disease risk independent of blood cholesterol and other traditional risk factors," said Dr. Milan Gupta, assistant clinical professor of medicine at McMaster University in Hamilton and cardiologist at the William Osler Health Centre in Brampton, Ont., and principal investigator of the clinical trial.

"Additionally, we have gained important new data about skin sterol levels in high-risk patients, particularly patients with a history of angina and diabetes."

PREVU* Point of Care Skin Sterol Test, which does not require fasting or the drawing of blood, tests the amount of sterol in the skin tissue.

Gupta said cholesterol gets into the skin in two ways: skin cells produce cholesterol and cholesterol can be absorbed into the skin from deeper tissues.

The skin test is simple and non-invasive, he said. A liquid solution is placed in the palm of an individual's hand for about 30 seconds. It binds to the cholesterol in the skin and causes the indicator to change colour. The strength of the colour is associated with how much skin cholesterol is present. A machine measures that level.

"This is not meant to replace blood work, absolutely not," said Gupta. "It may be an important addition to our ability to risk-stratify people."

Skin sterol was evaluated in 300 patients with proven coronary artery disease, 90 per cent of whom were taking statins to lower their elevated cholesterol levels.

Gupta said the key findings of the study include: skin sterol appears to provide new information about CAD risk; skin sterol levels were elevated in high-risk subjects, demonstrating a positive correlation to angina and diabetes when adjusted for age and race; serum, or blood, markers were not positively correlated with prior stroke, angina or diabetes; and skin sterol values were higher in Caucasians than in non-Caucasians.

Previous studies of patients not taking cholesterol-lowering medications have shown that skin sterol and blood cholesterol are not related, but that there is a relationship between skin sterol and history of heart attacks, as well as a correlation to various markers of cardiovascular risk.

"What seems promising now in patients with blood cholesterol that is supposedly normal, this may help us better define a patient's risk (of heart disease)," said Gupta.

mtoneguzzi@theherald.canwest.com