Risk Score Stratifies Peripheral Arterial Disease

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CHICAGO — A risk index for patients with peripheral arterial disease stratifies patients into four risk categories with substantially different mortality risks.

The risk categories were first defined with a derivation cohort of 1,498 patients, and then were confirmed by a separate validation cohort of 1,144 patients, Dr. Harm H. Feringa and his associates reported in a poster at the annual scientific sessions of the American Heart Association.

The risk index developed for peripheral arterial disease by the researchers included 13 elements.

This index "may be useful for patient counseling and medical decision making," said Dr. Feringa, a physician at Erasmus Medical Center in Rotterdam, the Netherlands, and his associates in the poster.

The patients in the derivation and validation cohorts were stratified by their clinical characteristics at baseline.

The outcomes were tracked during an average follow-up period of 8 years.

The overall estimated 10-year mortality of all patients in the derivation group was determined by the investigators to be 42%. For the patients in the validation group, the estimated 10-year mortality was 40%.

Based on a multivariate analysis of a large number of clinical measures, the researchers focused on 13 baseline features for the risk index.

Ten of these elements represented various mortality risks and were tallied as added points to the risk index. The other three elements were protective, and subtracted points from the risk score. (See box.)

To create and assess the risk score, the researchers divided the derivation and validation cohorts into four risk strata: low, those with scores of less than zero; low intermediate, those with scores of 0-5; high intermediate, with scores of 6-9; and high, patients with scores of more than 9.

In the derivation cohort, the 10-year mortality was about 20% for patients in the low group, about 30% for those in the low intermediate group, about 40% for patients in the high intermediate group, and about 70% for the highest-risk patients.

The 10-year mortality in the validation cohort was very similar: about 15% in the low group, 25% in the low intermediate patients, 40% in the high intermediate patients, and about 65% in the highest-risk patients. ■

Mortality Score: The 13 Elements

Finding	Points on Risk Index
Renal dysfunction	+11
History of heart failure	+7
Aged at least 70 years	+4
History of cerebrovascular events	+4
Q waves	+4
ST-segment changes	+4
Diabetes	+3
Ankle-brachial index under 0.6	+3
Hypertension	+2
History of smoking	+2
Currently treated with a β-blocker	–3
Currently treated with aspirin	–3
Currently treated with a statin	–4

Source: Dr. Feringa

Healthy Heart Guide Targets All Age Groups

The National Heart, Lung, and Blood Institute's "Your Guide to Physical Activity and Your Heart" is aimed at educating the public about the importance of regular physical activity for adults and children.

It is the latest in NHLBI's Your Guide to Better Health series, which includes titles addressing other heart disease–related topics. All can be downloaded free from www.nhlbi.nih.gov/health/public/heart/obesity/phy_active.htm or ordered at 301-592-8573. ■