

Changes in the LE signal between the first and second MRIs were investigated in both groups, and variation in signal measurements between the observers was also determined.

The results showed that, in patients with chronic CAD and impaired left ventricular function, LE signals in myocardial segments can be quantified and localized in a highly reproducible manner over an extended time. Furthermore, the researchers noted that LE signals were stable when patients had undergone revascularization, and there was little variation between measurements recorded by different observers.

The authors conclude that their study provides further evidence that contrast-enhanced MRI is a useful tool for assessment of myocardial viability.

Claire Braybrook

Original article Bülow H *et al.* (2005) Cardiac magnetic resonance imaging: long term reproducibility of the late enhancement signal in patients with chronic coronary artery disease. *Heart* **91**: 1158–1163

Coronary calcium measurement predicts coronary heart disease

Coronary artery calcium (CAC) is linked to an increased risk of coronary heart disease (CHD), but the degree to which detection of CAC provides incremental risk prediction beyond contemporary measure is controversial.

In this cohort study, 2,000 healthy male and female US Army personnel aged 45–50 years were evaluated using measured coronary risk variables and CAC detected by electron-beam tomography.

The incidences of acute coronary syndromes and sudden cardiac death were recorded over a mean follow-up period of 3 ± 1.4 years. Coronary calcium was detected in 22.4% of men and 7.9% of women and was associated with an 11.8-fold increased risk of CHD in men. The study was not powered to detect a relationship between CAC and CHD in women. Overall, at a mean age of 46 years, 1.95% of men with CAC suffered from acute cardiac events compared with 0.16% of those without CAC ($P < 0.0001$). The risk of coronary events increased incrementally with the degree of CAC. A family history of premature CHD was also predictive of incident events.

The marginal cost-effectiveness of introducing screening for CAC into a conventional

risk-prediction assessment was projected to be US\$37,633 per quality-adjusted life year, assuming 30% improvement in survival.

The authors conclude that, in young, asymptomatic men, “the presence of CAC provides substantial, cost-effective, independent prognostic value in predicting CHD.” Further studies including women and various ethnic groups are needed to extend these data.

Carol Lovegrove

Original article Taylor AJ *et al.* (2005) Coronary calcium independently predicts incident premature coronary heart disease over measured cardiovascular risk factors. *J Am Coll Cardiol* **46**: 807–814

Low public awareness of heart failure in Europe and health-care funding

Levels of community awareness of heart failure (HF) in Europe are low and might affect public demands for appropriate funding of health care and research, according to the first reported findings of the Study of Heart failure Awareness and Perception in Europe (SHAPE).

Data were obtained from a sample of 7,958 randomly selected individuals from nine European countries who completed a 32-question survey covering recognition, impact on health, prevalence and severity, treatment and costs of HF.

Although 86% of participants had heard of HF, only 3% were able to identify the condition from its clinical description, compared with 31% who correctly identified angina and 51% who identified stroke. Only 29% of participants considered breathlessness, tiredness and swollen ankles to be ‘a severe complaint’, although 86% said they would seek medical attention if they had these symptoms. Overall, participants tended to underestimate the prevalence of HF, the effect of HF on mortality relative to other diseases, the ability of drugs to prevent HF, and the degree of health-care expenditure related to HF. In general, responses across Europe were similar, although recognition of the term HF, the perceived benefits of therapy, knowledge of the need for lifestyle changes resulting from HF, and preferred sources of information, varied between countries.

Given these clear misconceptions, strategies to improve public awareness of the importance of HF are needed. The authors suggest