Depression upon hospitalization for coronary events is predictive of mortality

Depression during hospitalization following acute coronary syndromes is known to be related to long-term mortality. Most studies showing this relationship rely on a single measure of depression taken at admission, and the effect of a history of depression and persistent depressive symptomatology on mortality is unclear.

This longitudinal observational study included 750 patients with unstable angina pectoris or myocardial infarction admitted to one of 12 coronary care units. Assessments included analysis of sociodemographic and clinical data, and of the BECK DEPRESSION INVENTORY (BDI); findings were linked to 5-year all-cause mortality. Overall, 23.2% of participants reported a history of a depressed mood for >2 weeks, with 14% reporting persistent depression. BDI scores were elevated at hospitalization in 31.3% of participants. After adjusting for various prognostic indicators, depressive symptomatology during hospitalization was significantly predictive of mortality within 5 years, but depressive history was not. High BDI scores ($\geq$10) were associated with hazard ratios ranging from 1.9 at 2 years to 1.53 at 5 years compared with lower scores (<10).

These data suggest that depressive symptoms on hospitalization for cardiac events, but not before, are an important prognostic indicator for many years following a cardiac event. Early identification and treatment of elevated depressive symptoms might not only improve quality of life, but might also decrease the risk of mortality.

Carol Lovegrove

Original article Grace SL *et al.* (2005) Effect of depression on five-year mortality after an acute coronary syndrome. *Am J Cardiol* [doi: 10.1016/j.amjcard.2005.06.052]

A meta-analysis of plasma fibrinogen levels and risk of cardiovascular disease

Elevation in blood levels of fibrinogen are linked with an increased risk of a range of chronic disease outcomes, a meta-analysis carried out by UK researchers has revealed.

While previous analyses have shown that the relative risk for coronary heart disease (CHD) is 1.8 per 1 g/l increase in plasma fibrinogen level, this meta-analysis assessed whether levels of fibrinogen correlated with other vascular and nonvascular diseases. Detailed information about individual participants was collected, including age, sex, cigarette smoking, plasma lipid levels and blood pressure.

Thirty-one prospective studies of major cardiovascular diseases and nonvascular mortality were included in the study, with data analyzed for a total of 154,211 participants who had no known cardiovascular disease at baseline.

The results show an approximately log-linear association between the levels of plasma fibrinogen and the risk of CHD, stroke, other vascular mortality and nonvascular mortality. Interestingly, there was no marked change in the association between fibrinogen level and CHD or stroke according to baseline levels of established risk factors such as sex, cigarette smoking, blood pressure and lipid levels.

Further research to investigate the potential causal relationship between plasma fibrinogen and chronic disease is warranted. The authors also suggest a large-scale study of genetic determinants of fibrinogen level and randomized trials of selective fibrinogen-lowering agents.

Claire Braybrook

Original article Danesh J *et al.* (2005) Plasma fibrinogen level and the risk of major cardiovascular diseases and nonvascular mortality: an individual participant meta-analysis. *JAMA* **294:** 1799–1809

Use of automated external defibrillators by lay people

Since emergency ambulances often fail to reach cardiac arrest victims in time for successful resuscitation, consideration has been given to 'on-site' defibrillation by lay people. In England, a program was rolled out in 2000 to place automated external defibrillators (AEDs) in busy public areas; results from the first 4 years of the program have recently been published.

A total of 681 AEDs were provided at 110 public places that were deemed high risk sites for cardiac arrest including airports, mainline railway stations, London Underground stations,