Osteopontin—a novel biomarker of prognosis in chronic heart failure?

Clinical studies have shown that osteopontin expression is increased in patients with cardiovascular disease. Rosenberg *et al*. analyzed plasma samples from 420 patients with chronic heart failure (267 patients with dilated cardiomyopathy and 153 patients with ischemic cardiomyopathy) and 43 healthy controls. They found that osteopontin levels correlate with severity of heart failure and can predict prognosis.

Patients with heart failure had increased plasma osteopontin levels compared with healthy controls (532 ng/ml vs 382 ng/ml, $P = 0.008$); levels were not affected by disease type or the patient's sex. Osteopontin levels were significantly lower in patients with no or mild (NYHA class I or II) symptoms than in those with moderate to severe (NYHA class III or IV) symptoms (479 ng/ml vs 672 ng/ml, $P < 0.0001$). The median survival of patients with osteopontin levels >929 ng/ml (a cutoff value derived from receiver operating characteristic curve analysis) was 34 months, whereas that of patients with levels of osteopontin below this limit exceeded 48 months (the duration of follow-up in this study). Levels of osteopontin, N-terminal brain natriuretic propeptide and serum creatinine, as well as NYHA symptom class, were found to be independent predictors of 4-year mortality in patients with heart failure. Cox proportional hazards regression analysis indicated that osteopontin levels provided additional prognostic information to that provided by N-terminal brain natriuretic propeptide levels.

The authors conclude that osteopontin could be used as a biomarker to aid prediction of prognosis in patients with heart failure.

Original article Rosenberg M *et al.* (2008) Osteopontin, a new prognostic biomarker in patients with chronic heart failure. *Circ Heart Fail* **1:** 43–49

Outcomes of emergency surgery in octogenarians with type A acute aortic dissection

The outcomes of emergency surgery in elderly individuals require careful consideration; as populations age, this area of practice remains controversial. Hata *et al.* assessed the prognosis of 58 octogenarian patients (38 female) with type A acute aortic dissection (mean age 83.2 years). Surgery was recommended to all patients, 30 of whom consented to undergo the procedure; the other 28 patients were treated conservatively with intravenous antihypertensive medications and low-dose catecholamine.

Initial outcomes of surgically treated patients were better than those of conservatively managed patients: 30-day mortality was 13.3% in the surgical patients versus 60.7% in the medical patients ($P = 0.0003$). Although the aortic replacement was successful, however, five surgically treated patients became bedridden due to postoperative complications such as cerebral damage and depression. Understandably, in these cases, the families complained to the surgeon and refused to pay for the surgery. The families of pharmacologically treated surviving patients made no complaints. Kaplan–Meier analysis showed no significant difference in actuarial 5-year survival between the treatment groups (48.5% vs 35.4%, respectively).

Hata and colleagues conclude that it is essential for families of elderly patients to be fully informed of all possible outcomes of surgery in order to reach a consensus with the surgeon. In this high-risk group, even successful surgery can be followed by neurologic complications and depression. Although life-saving surgical intervention is of undeniable value, the patient's postoperative quality of life must also be considered.

Original article Hata M *et al.* (2008) Should emergency surgical intervention be performed for an octogenarian with type A acute aortic dissection? *J Thorac Cardiovasc Surg* **135:** 1042–1046

Drug-eluting stents are as safe as bare-metal stents in patients with diabetes

A quarter of patients who undergo percutaneous coronary intervention (PCI) have diabetes mellitus. Studies in nondiabetic patients found an increased incidence of death and nonfatal myocardial infarction (MI) in recipients of drug-eluting stents (DESs). Brar *et al*.'s observational study compared the incidence of these events in diabetic patients who underwent first-time PCI with either DESs (paclitaxel-eluting or