levels. Study participants were randomized to receive 400 mg bezafibrate ($n = 178$) or placebo ($n = 161$) once daily. After a median of 6.3 years, diabetes developed in 37.0% of patients from the placebo group and 27.1% of patients from the bezafibrate group (log rank analysis = 0.01). The onset of diabetes was significantly delayed in bezafibrate-treated patients (median 4 years, interquartile range 2.1–5.0) compared with placebo-treated patients (median 2 years, interquartile range 0.5–3.5; $P = 0.002$). Multivariate analysis showed that bezafibrate treatment was an independent predictor of reduced risk of developing type 2 diabetes (hazard ratio 0.59, 95% CI 0.39–0.91).

Pharmacologic intervention using bezafibrate, which influences primary lipid metabolism, was thereby shown to delay the time to onset and decrease the incidence of type 2 diabetes in obese patients with normal fasting glucose levels.

The authors urge caution, however, in interpreting their findings, as the development of diabetes was not declared an endpoint of the original study, but was identified by subsequent obesity analysis. In addition, use of impaired fasting glucose to diagnose diabetes at baseline could have been inaccurate; glucose tolerance tests should also have been used.

Kate Matthews

Original article Tenenbaum A *et al.* (2005) Effect of bezafibrate on incidence of type 2 diabetes mellitus in obese patients. *Eur Heart J* **26:** 2032–2038

Potential of skeletal myoblast transplantation for ischemic heart disease

Autologous myoblasts can be transplanted into infarcted myocardial tissue safely, with possible benefits on cardiac function, a 4-year pilot study has shown. Following on from previous studies which showed that human skeletal myoblasts can be grafted into the postinfarction scar tissue of patients with ischemic heart disease, Dib *et al.* have assessed the immediate and long-term safety of the procedure.

Thirty patients with acute myocardial infarction and left ventricular dysfunction took part in this study. They received an injection of up to 3×10^8 skeletal myoblast cells while undergoing coronary artery bypass grafting (CABG; $n = 24$) or implantation of a left ventricular assist device (LVAD) as a bridge to heart transplantation ($n = 6$). The procedure was well tolerated, with patients experiencing postoperative recovery typical for bypass or LVAD surgeries. Although three patients died in the LVAD group and one in the CABG group, these deaths were related to surgical complications and a link to implantation of skeletal myoblasts was not shown. Nonsustained ventricular tachycardia was the most serious adverse event that might have been linked with the procedure, and this occurred in only 2 of 24 CABG patients.

Subsequent echocardiography revealed a marked increase in left ventricular ejection fraction in treated patients, and positron emission tomography indicated that viability of the infarcted myocardial tissue had also improved. Histologic evaluation in four heart-transplant recipients showed that transplanted myoblasts had survived and formed myofibers, without disturbing or distorting normal myocardial tissue.

Together, these encouraging data warrant further clinical trials to assess potential benefits of transplanting autologous myoblasts in patients with ischemic cardiomyopathy.

Claire Braybrook

Original article Dib *et al.* (2005) Safety and feasibility of autologous myoblast transplantation in patients with ischemic cardiomyopathy: four-year follow-up. *Circulation* **112:** 1748–1755

Safety and feasibility of edge-to-edge mitral valve repair: the EVEREST trial

Several mitral valve repair techniques can be employed to reduce symptoms of mitral regurgitation. One such technique is edge-to-edge repair, which involves suture of the mitral valve leaflets along their medial edges to form a reduced double-orifice valve.

Feldman and colleagues have investigated the safety and feasibility of holding the mitral leaflets together with a metal clip, delivered and positioned by catheter. To date, 24 patients with moderate to severe mitral regurgitation have been treated using this clip device as part of the Endovascular Valve Edge-to-Edge Repair Study (EVEREST).

Four major adverse events occurred during 30-day follow-up: one patient had a non-embolic stroke associated with postprocedural