

Nature Reviews Cardiology **11**, 5 (2014); published online 3 December 2013;
 doi:10.1038/nrcardio.2013.191;
 doi:10.1038/nrcardio.2013.192;
 doi:10.1038/nrcardio.2013.193;
 doi:10.1038/nrcardio.2013.194

IN BRIEF

STEM CELLS

Stem cells are safe in ischaemic cardiomyopathy

In a phase 1 and 2 trial in which mesenchymal stem cells (MSCs), bone marrow mononuclear cells (BMCs), or placebo was used to treat patients with ischaemic cardiomyopathy ($n=65$), serious adverse events occurred at a similar rate in all three groups. After 1 year, patients treated with MSCs or BMCs had improved Minnesota Living With Heart Failure scores; this improvement was not seen with placebo. Patients treated with MSCs—but not BMCs or placebo—also had improvements in the 6-minute walk distance, decreased infarct size, and improved regional myocardial function relative to baseline measurements.

Original article Heldman, A. W. *et al.* Transcatheter mesenchymal stem cells and mononuclear bone marrow cells for ischemic cardiomyopathy. The TAC-HFT randomized trial. *JAMA* doi:10.1001/jama.2013.282909

STEM CELLS

Treatment of peripheral artery disease with GM-CSF

The effects of 4-weeks treatment with granulocyte-macrophage colony-stimulating factor (GM-CSF) in patients with peripheral artery disease were investigated in a phase 2 double-blind, placebo-controlled study. At 3 months, no differences were observed in peak treadmill walking time between patients treated with GM-CSF ($n=80$) and those treated with placebo ($n=79$). Patients treated with GM-CSF treatment did, however, have improved distance scores in the walking impairment questionnaire and physical function subcores in the SF-36 questionnaire.

Original article Poole, J. *et al.* Effect of progenitor cell mobilization with granulocyte-macrophage colony-stimulating factor in patients with peripheral artery disease. A randomized clinical trial. *JAMA* doi:10.1001/jama.2013.282540

STEM CELLS

BMCs are not effective to treat patients with STEMI

In the TIME trial, the timing of stem cell delivery in patients with ST-segment elevation myocardial infarction (STEMI) was investigated. Patients with STEMI who were reperfused with primary percutaneous coronary intervention and stenting and had a left ventricular ejection fraction $\leq 45\%$ received treatment with bone marrow mononuclear cells ($n=65$) or placebo ($n=30$). Irrespective of whether the cells were delivered 3 days or 7 days after the infarction, the injection of bone marrow mononuclear cells did not improve outcomes at 1 year relative to placebo treatment.

Original article Traverse, J. H. *et al.* One-year follow-up of intracoronary stem cell delivery on left ventricular function following ST-elevation myocardial infarction. *JAMA* doi:10.1001/jama.2013.282674

PREVENTION

A little education goes a long way

The beneficial effects of an educational intervention to improve dietary behaviour, increase physical activity, and control weight in preschoolers in Usaquén, Columbia, have lasted for ≥ 36 months. The significant increases in mean knowledge, attitudes, and habit scores observed in 1,216 children were also associated with increases in knowledge and attitude scores in the 928 parents in the study.

Original article Céspedes, J. *et al.* Promotion of cardiovascular health in preschool children: 36-month cohort follow-up. *Am. J. Med.* **126**, 1122–1126 (2013).