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IN BRIEF

DIABETES

Empagliflozin and cardiovascular outcomes in type 2 diabetes

Empagliflozin is an inhibitor of the sodium–glucose cotransporter 2, and can be used in patients with type 2 diabetes mellitus to reduce hyperglycaemia by increasing urinary glucose excretion. To determine the safety of this drug in patients at high cardiovascular risk, the EMPA-REG OUTCOME investigators randomly allocated 7,020 of these patients to receive 10 mg or 25 mg of empagliflozin or placebo once daily, in addition to standard care. Empagliflozin was associated with a significant reduction in the composite end point of cardiovascular outcomes and, in particular, in the rates of hospitalization for heart failure (35% relative risk reduction), cardiovascular death (38% relative risk reduction), and all-cause death (32% relative risk reduction). "Our trial," conclude the investigators, "provides data to support the long-term use of empagliflozin, as well as strong evidence for a reduction in cardiovascular risk."

ORIGINAL ARTICLE Zinman, B. *et al.* Empagliflozin, cardiovascular outcomes, and mortality in type 2 diabetes. *N. Engl. J. Med.* doi:10.1056/NEJMoa1504720

INTERVENTIONAL CARDIOLOGY

Ranolazine after incomplete revascularization

Ranolazine is an inhibitor of the late sodium current and is used to minimize calcium overload and angina frequency in patients with chronic angina. The RIVER-PCI investigators hypothesized that ranolazine would reduce angina and improve quality of life in patients with incomplete revascularization after percutaneous coronary intervention (PCI). A total of 2,604 of these patients with a history of chronic angina were randomly assigned to receive oral ranolazine or placebo. No significant incremental benefit was associated with adding ranolazine to the standard treatment regimen. Improvements in angina frequency and quality-of-life score were evident in both groups within 1 month of PCI, and were sustained up to 1-year of follow-up. "Our findings," summarize the investigators, "highlight the difficulty in assessing the clinical significance of incomplete revascularization, since patient-reported angina and quality of life markedly improved within 1 month after PCI. RIVER-PCI clarifies that prescribing ranolazine based on angiographic determinations alone is unsupported."

ORIGINAL ARTICLE Alexander, K. P. *et al.* Effects of ranolazine on angina and quality of life after percutaneous coronary intervention with incomplete revascularization: results from the Ranolazine for Incomplete Vessel Revascularization (RIVER-PCI) trial. *Circulation* doi:10.1161/CIRCULATIONAHA.115.019768

INTERVENTIONAL CARDIOLOGY

Long-term survival after PCI for stable ischaemic heart disease

Between June 1999 and January 2004, the COURAGE trial investigators randomly assigned 2,287 patients with stable ischaemic heart disease to an initial management strategy with optimal medical therapy (OMT) only, or OMT plus percutaneous coronary intervention (PCI). After 4.5 years of follow-up, no significant difference was found in the rate of survival between the two groups. The investigators now report extended follow-up data (median duration 11.9 years at sites that permitted survival tracking) in 1,211 of these patients. All-cause mortality remained similar in the two treatment groups (24% vs 25%; HR 1.03, 95% CI 0.83–1.21, $P = 0.76$).

ORIGINAL ARTICLE Sedlis, S. P. *et al.* Effect of PCI on long-term survival in patients with stable ischemic heart disease. *N. Engl. J. Med.* **373**, 1937–1946 (2015)