Everolimus-eluting versus sirolimus-eluting stents: an updated meta-analysis of randomized trials.

Abstract:

Everolimus-eluting stents (EES; Xience V) are among the most commonly used newer generation drug-eluting stents in clinical practice and have clearly proven superiority over paclitaxel-eluting stents. Nevertheless, the relative merits of EES against the previous gold-standard sirolimus-eluting stent (SES; Cypher) have been less extensively assessed. We aimed to compare the clinical outcomes of EES with SES in patients with coronary artery disease undergoing percutaneous coronary intervention. We identified eight eligible randomized trials comparing EES with SES including 11,167 patients. The primary endpoint was the incidence of major adverse cardiac events (MACE). Secondary endpoints were target lesion revascularization (TLR) and the composite of definite and probable stent thrombosis. The follow-up ranged from 9 to 36 months. No heterogeneity across the trials was observed regarding the selected endpoints. There was no difference in risk of MACE (HR 0.91 [0.79-1.04]; p = 0.15), TLR (HR 0.86 [0.72-1.04]; p = 0.12) and the composite of definite and probable stent thrombosis (HR 0.84 [0.54-1.29], p = 0.42). The risk of definite stent thrombosis was significantly lower in patients receiving EES (HR 0.49 [0.27 to 0.91]; p = 0.02). Using the largest available dataset of patients treated in randomized trials, the present meta-analysis demonstrated that the
use of EES versus SES was associated with comparable incidence of overall clinical events. However, EES may be associated with a lower risk of definite stent thrombosis.