CORONARY ARTERY DISEASE

Durable-polymer drug-eluting stents might not lead to very late stent thrombosis

Biodegradable polymer-coated drugeluting stents (BP-DES) have similar efficacy and safety to durable-polymer drug-eluting stents (DP-DES) according to investigators presenting their findings at the AHA Scientific Sessions 2014 in Chicago, IL, USA.

In the randomized BASKET-PROVE II study, 2,291 participants with acute or stable coronary artery disease, who required stents ≥3 mm in diameter, received either a biolimus-A9-eluting BP-DES, a secondgeneration everolimus-eluting DP-DES, or a thin-strut silicon-carbide-coated bare-metal stent (BMS). The primary end point at 2 years (a combination of cardiac death, myocardial infarction, and clinically indicated target-vessel revascularization) occurred with similar frequencies in patients who received a BP-DES or a DP-DES (7.6% vs 6.8%), but was more common in patients who received a BMS (12.7%). In an intention-to-treat analysis,

BP-DES were noninferior to DP-DES (absolute risk difference 0.78%, 95% CI –1.93 to 3.50); and superior to BMS (absolute risk difference –5.16, 95% CI –8.32 to –2.01) for the primary outcome.

Although both DES were superior to BMS, BP-DES did not reduce the incidence of very late stent thrombosis, myocardial infarction, or cardiac death beyond 1 year compared with DP-DES (OR 1.22, 95% CI 0.63–2.37, P=0.54). These findings suggest that very late stent thrombosis might not result from the use of durable-polymer stents.

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Original article Kaiser, C. et al. Long-term efficacy and safety of biodegradable-polymer biolimus-eluting stents: main results of the Basel Stent Kosten-Effektivitäts Trial-PROspective Validation Examination II (BASKET-PROVE II), a randomized, controlled noninferiority 2-year outcome trial. Circulation doi:10.1161/CIRCULATIONAHA.114.013520

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