CORONARY ARTERY DISEASE SORTING OUT AND COMPARING STENTS

Stent design continues to evolve. Third-generation stents elute a sirolimus analogue (biolimus) from a biodegradable polymer. A high rate of late stent thrombosis (>1 year) was observed with all earlier stent versions; third-generation stents were, therefore, designed to circumvent the chronic inflammation and incomplete endothelialization of stent struts thought to cause late stent thrombosis. The results from two randomized, multicentre, noninferiority trials have now been reported. Data from the COMPARE II trial indicate the noninferiority of third-generation stents relative to earlier stent designs, whereas the results of the SORT OUT V trial do not support the noninferiority hypothesis.

The SORT OUT V trial investigators compared a stent eluting biolimus from a biodegradable polymer (Nobori®, Terumon, Tokyo, Japan) with a sirolimus-eluting stent. After 9 months, the primary end point (cardiac death, myocardial infarction [MI], definite stent thrombosis, or target-vessel revascularization [TVR]) was reached in 4.1% of the patients who received the biolimus-eluting stent ($n=1,229$) and in 3.1% of the patients who received the sirolimus-eluting stent ($n=1,239$) (risk difference 0.9%, P for noninferiority=0.06).

By contrast, data from the COMPARE II trial, in which the Nobori® stent was compared with an everolimus-eluting stent, support the noninferiority of the latest stent design. The primary end point (cardiac death, MI, or TVR) was reached in 5.2% of patients with a biolimus-eluting stent ($n=1,795$) and in 4.8% of patients with an everolimus-eluting stent ($n=912$) after 12 months (P for noninferiority <0.0001).

Intergroup differences were small in both of these trials; the Noburi® stent came close to statistical noninferiority in the SORT OUT V trial. With continued follow-up, the investigators will examine the efficacy of third-generation stents in reducing late thrombosis, which was the initial rationale for the design of these devices with biodegradable polymers.

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Original articles Christiansen, E. H. *et al.* Biolimus-eluting biodegradable polymer-coated stent versus durable polymer-coated sirolimus-eluting stent in unselected patients receiving percutaneous coronary intervention (SORT OUT V): a randomised non-inferiority trial. *Lancet* doi:10.1016/S0140-6736(12)61962-X | Smits, P. C. *et al.* Abluminal biodegradable polymer biolimus-eluting stent versus durable polymer everolimus-eluting stent (COMPARE II): a randomised, controlled, non-inferiority trial. *Lancet* doi:10.1016/S0140-6736(12)61852-2