Plateau for occurrence of very late stent thrombosis beyond 3-years after implantation of the Sirolimus-eluting stent: long term follow-up of the EVASTENT patients


(1) CHU Grenoble, USIC, Grenoble, France – (2) CHU Clermont-Ferrand, Cardiologie, Clermont-Ferrand, France – (3) CHU Grenoble, Centre d’Investigation Clinique, Grenoble, France – (4) AP-HP, Hôpital Européen Goerges-Pompidou, Cardiologie, Paris, France – (5) CHU Grenoble, Cardiologie, Grenoble, France

Background and Objective: The frequency of very late stent thrombosis (VLST) up to 3 years after Sirolimus-Eluting Stent (SES) implantation is 0.5% to 0.6%/year, but the rate after 3 years (“very” VLST) is not known.

Methods: Diabetic and non-diabetic patients, with or without multiple diseased vessels, included in the EVASTENT matched cohort registry were followed-up 5½ years or more after stent implantation.

Results: Follow-up was obtained in 92% of the cohort (median 5.6 years). All cause deaths (including cancer and complications of diabetes), at a steady rate of 2.5%/year up to 3 years, continued at 1.2%/year beyond 3 years (difference NS). In contrast VLST (any ARC definition) was only 0.18%/year (95% Confidence interval: 0.08-0.39) after 3 years, versus 0.63%/year (CI: 0.41 to -0.98) between 1 and 3 years (p=0.03). Target lesion revascularisation (TLR) was also lower after 3 years than before 3 years (1.9% vs. 7%, p=0.01), 66% of the revascularization procedures after 5 years being for non-target lesions. After 3 years, in contrast to that before 3 years, no differences between db+ and db– were observed for TLR and ST rates. It is noteworthy that 51% of patients continued to be on clopidogrel therapy 6 years after receiving one or more SES.

Conclusion: All cause deaths continued at a steady rate over 6 years, in particular in the diabetic groups with multiple pathologies, reflecting the increased age of the population. However cardiac deaths and “very” VLST leveled out beyond 3 years.

Does the type of stent matter in ‘real life’ PCI?

Olivier Barthelemy [Orateur], G. Heüff, Anne Bellemain-Appaix, J. Silvain, F. Beygui, R. Choussat, Emmanuel Berman, Jean Philippe Collet, G. Montalescot, Jean Philippe Metzger, Claude Le Feuvre

AP-HP, CHU Pitié-Salpêtrière, Cardiologie Médicale, Paris, France

Aim: To compare clinical outcomes in consecutive patients treated by percutaneous coronary intervention (PCI) according to the type of stent used: 1) BMS vs. DES, 2) Sirolimus- (SES) vs. Paclitaxel- (PES) vs. Zotarolimus- (ZES) vs. Everolimus eluting stent (EES).

Methods: Among 2334 PCI performed over two years, consecutive patients treated successfully with only one kind of stent were included. Patients with MI, cardiogenic shock or out-of-hospital cardiac arrest were excluded.

We compare the occurrence of 1) TVF (CV death, Target vessel MI, TVR), 2) Target Lesion Revascularization (TLR) and 3) definite ST Thrombosis (ST) at one year.

Results: Twelve hundred sixty patients fulfilled inclusion criteria, 615 (49%) had BMS, 645 (51%) DES. Among the DES group, 187 (29%) had SES, 171 (27%) PES, 206 (32%) ZES, 67 (10%) EES and 14 (2%) others.

Patients in the BMS group were older, had more comorbidities, the mean stent length was lower and the average stent diameter higher, compared to DES.

Clinical and procedural characteristics were well matched between the different type of DES, except for a lower mean and total stent length in the PES group.

TVF according to the type of stent are shown in the figure. TLR was higher after BMS implantation (9.9% vs. 4.3%, p=0.002) without any difference between the different type of DES. The definite ST rates were comparable whatever the stent used.

Independent predictors of TVF were BMS (OR 2.08; 95%CI 1.345-3.115, p<0.001), EES (OR 0.127; 95%CI 0.017-0.956, p=0.045) as hypertension, prior PCI and renal failure.

Conclusions: In ‘real life’, BMS is independently correlated with an excess of TVF, only partly explained by the higher risk feature of the population. All kind of DES are similarly associated with a lower TLR rate without any excess of stent thrombosis at one year. EES appears independently associated with the absence of TVF.