Background: Healing by deteriorating uniform vessel healing after PES implantation. Fifty-four lesions treated with PES were evaluated with 6-month follow-up.

Methods: After paclitaxel-eluting stents (PES) deployment.

Background: Kobe University Graduate School of Medicine, Kobe, Japan
Hiromasa Otake, Junya Shite, Toshiro Shinke, Ken-ichi Hirata

Conclusion: A significant difference in terms of healing percent was observed with time.

TVF was 12.7% and TVR was 7.5%. Definite or probable stent thrombosis occurred in 1.7%.

Conclusion: In the e-HEALING registry, coronary bifurcation stenting with an ECS results in favourable clinical outcomes and low incidences of repeat revascularization and stent thrombosis.

Impact of Stent Fracture on Stent Thrombosis After Drug-eluting Stent and Bare-metal Stent Implantations
Shunsuke Kubo, Kazuhiro Kadota, Suguru Otsuru, Naoki Saito, Daiji Hasegawa, Yoshiehko Shogemoto, Seiji Habara, Takashi Tuda, Hiroshi Tanaka, Yasushi Fuku, Naoki Oka, Taisyuki Gozo, Kazuki Mitsudo Cardiology, Karashiki Central Hospital, Karashiki, Japan

Background: It has been reported that stent fracture after drug-eluting stent (DES) implantation was related to stent thrombosis. However, there is no data available to evaluate the association between stent fracture and stent thrombosis considering the stent type. We investigated the relationship between stent fracture and stent thrombosis, classified by the occurrence time after DES and bare-metal stent (BMS) implantations: subacute stent thrombosis (SAT); late stent thrombosis (LST); and very late stent thrombosis (VLST).

Methods: From January 2001 to March 2011, 8802 lesions (5683 patients) were treated with BMS and 12079 lesions (8365 patients) were treated with DES. In these patients, we reviewed the lesions with SAT, LST, and VLST. Stent fracture was defined as apparent strut separation found by coronary angiography. Stent thrombosis was defined according to the Academic Research Consortium definition.

Results: SAT occurred in 28 lesions (25 patients) after DES implantation and 40 lesions (34 patients) after BMS implantation. LST occurred in 12 lesions (12 patients) after DES implantation and 22 lesions (22 patients) after BMS implantation. VLST occurred in 27 lesions (25 patients) after DES implantation and 17 lesions (17 patients) after BMS implantation. The figure shows that stent fracture in stent thrombosis was significantly more often observed after DES implantation than BMS implantation, especially in LST and VLST. No stent fracture was observed in stent thrombosis after BMS implantation.

TCT-264
Twelve-month Clinical Outcomes After Coronary Stenting with the Genous™ Bio-engineered R Stent™ in Patients with a Bifurcation Lesion From the e-HEALING Registry
Pier Woudstra1, Marcel A Beijk1, Peter Damman1, Margo Klop2, Sigmund Silber1, Expedito Ribeiro2, Harry Suryapranata1, Jaroslav Wojcik1, Sun Kai Hs5, Jan G Tijssen1, Rubbert J de Winter1
1Department of Cardiology, Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands; 2Kardiologische Praxis und Praxisükleinik, Munich, Germany; 3Incor, The Heart Institute of the University of São Paulo, São Paulo, Brazil; 4Radboud University Medical Center Nijmegen, Nijmegen, Netherlands; 5Department of Cardiology, Medical University of Lublin, Lublin, Poland, 6Sarawak General Hospital, Jalan Tun Ahmad Zaidi Adruce, Sarawak, Malaysia

Background: Patients treated for bifurcation lesions are at high risk for clinical restenosis and stent thrombosis. The e-HEALING registry was designed to capture clinical data on the use of the Genous™ Bio-engineered R stent™, an Endothelial Progenitor Cell capturing stent (ECS), in routine clinical practice. In our current analysis, we investigated the 12-month clinical outcomes in patients treated with an ECS for a bifurcation lesion.

Methods: The worldwide, prospective, non-randomized e-HEALING registry aimed to enroll 5000 patients treated for coronary artery disease with a 1 ECS between October 2005 and October 2007. Clinical follow-up was at 1, 6 and 12 months. The primary end point was Target Vessel Failure (TVF), defined as cardiac death, myocardial infarction, or target vessel revascularization (TVR) at 12 months.

Results: A total of 573 patients (11.6%) were treated for at least one bifurcation lesion and assessed in the current analysis. Baseline characteristics showed a median age of 65 years, 21% diabetics and 36% had unstable angina. A total of 63% of the bifurcation lesions was located in the LAD and mean stent length was 20.7 mm. At 12-months, TVF was 12.7% and TVR was 7.5%. Definite or probable stent thrombosis occurred in 1.7%.

Conclusion: In the e-HEALING registry, coronary bifurcation stenting with an ECS results in favourable clinical outcomes and low incidences of repeat revascularization and stent thrombosis.
TCT-266
Impact Of Stent Length In Diffuse Coronary Disease On Clinical Outcome
After Zotarolimus-Resolute-Eluting Stent Implantation: an Italian Multicentre Observational Evaluation
Claudio Larosa1, Enrico Romagnoli2, Azeem Latib1, Giovanni Valent1, Gianluigi Minevini1, Francesco Burzotta1, Ernesto Lioy2, Antonella Tommasino1, Vincenzo Cucc1, Maria De Vito1, Piero Montorsi1, Antonio Colombo1
1Cardiology, Ospedale “L. Bonomo”, Andria, Italy; 2Policlinico Casilino, Rome, Italy; 3San Raffaele Scientific Institute, Milan, Italy; 4Pollicino Gemelli - Catholic University, Rome, Italy; 5Casa di cura accreditata Villa Verde, Taranto, Italy; 6Ospedale Morgagni-Pierantoni, Forlì, Italy; 7Centro Cardiologico Monzino, Milan, Italy

Background: Implantation of long and multiple overlapping DES in diffusely diseased vessels, is frequently performed in routine clinical practice. Despite their widespread use, concerns have been raised regarding DES safety and efficacy for treatment of diffuse disease or long lesions requiring multiple stent implantation. In this registry, we assessed the performance of the second generation Resolute Zotarolimus-eluting stent (ZES) in this specific subgroup of patients.

Methods: From August 2008, 314 patients treated in 10 Italian Centers with >31.5mm Resolute stent were prospectively followed in the context of the Clinical-Service program. Comparison with patients receiving <31.5 mm of stents was also performed. Patients were divided in two groups according to the length of the stented implanted: group 1 ([n=314]Short Stent, SS): stented segment length 31.5mm; group 2 ([n=314]Long Stent, LS): stented segment length >31.5mm. We compared the incidence of MACE (cardiac death, re-myocardial infarction, TLR), stent thrombosis (ST) and target vessel revascularization (TVR) in the two groups.

Results: 314 patients (757 lesions) with a total ZES length >31.5 mm was collected in the LS group (79% male, 66±10 years, 33% diabetic). The mean follow up was 244±160 days. SS group was composed of 731 patients (77% male, 65±11 years, 30% diabetic) followed for a mean time of 316±295 days. There was no significant difference in the overall incidence of MACE among the two groups (5.6% in LS versus 5.7% in SS, p=ns). The incidence of cardiac death (1.8% vs. 2.5%), acute myocardial infarction (2.8% vs. 2.6%), TLR (2.4% vs. 2.6%) and TVR (5.5% vs. 6.9%) was similar in the LS vs. SS groups (definite: 0.6% vs. 0.3%, p=0.37; probable: 0% vs. 1.4%, p=0.27; early: 0.6% vs. 0.3%, p=ns; late: 0.6% vs. 2% p=ns). Dual antiplatelet therapy discontinuation before 12 months was similar in the two groups (LS=1.6%, SS=2.9%, p=ns).

Conclusion: In this multicentre prospective study, implantation of the Resolute ZES for the treatment of diffuse and long coronary artery disease appears effective and safe. Multiple or long Resolute stent implantation was associated with an acceptable MACE rate at mid-to-long term follow-up without a significant increase in the risk of ST.

TCT-267
No Recovery of Drug-Eluting Stent Use in Clinical Practice in Europe After the Collapse Following Initial Reports of Impaired Outcomes in September 2006: Results of The Euro Heart Survey PCI-Registry
Anselm Kai Gitt1, Timm Bauer2, Matthias Hochadel2, Uwe Zeymer1, Ralf Zahn1, Christian Hamm1
1Cardiology, Herzcentrum Ludwigshafen, Ludwigshafen, Germany; 2Institut fuer Herzinfarktforschung Ludwigshafen an der Universitaet Heidelberg, Ludwigshafen, Germany; 3Kerckhoff-Klinik, Bad Nauheim, Germany

Background: Since the approval of Drug-Eluting Stents (DES) in Europe in 2002, DES have been quickly entering into daily clinical practice even in indications without data from randomised controlled clinical trials (off-label use). At the European and World Congress of Cardiology in Barcelona 2006, alarming data were presented on a worse long-term prognosis following DES implantation compared with BMS. This result in a higher cautiousness for its use with a decrease of DES implantations in clinical practice.

Methods: Between 2005 and 2008, 47,407 consecutive patients undergoing PCI were enrolled into the PCI-Registry of the Euro Heart Survey Programme to document patient characteristics, PCI details and hospital complications in different PCI indications. We examined the development of DES use over time by splitting the enrolment period into 6-months periods (Jan-Jun and Jul-Dec) for the years 2005 to 2008 to identify a possible collapse in DES use and its further development following September 2006.

Results: A total of 22,917 patients underwent elective PCI, 24,090 PCI for ACS. From the very beginning of the documentation period the use of DES was high with about 60% in elective PCI and about 50% in PCI for ACS. After the presentation of the alarming data on long-term outcome after DES during the ESC Congress in 2006, the use of DES significantly decreased to 43% in elective PCI (p<0.01) and to 33% in PCI for ACS (p<0.01) and remained low since then.

Conclusion: In consecutive patients undergoing elective PCI as well as PCI for ACS in Europe, the use of DES collapsed after the presentation of alarming data of a worse long-term prognosis following DES implantation during the ESC-Congress 2006. Despite re-assuring data on the safety of DES, the use of DES did not recover in clinical practice in Europe.