

with long term DAPT, short term DAPT had a higher rate with myocardial infarction (OR: 1.41; 95% CI: 1.25-1.60; $p < 0.00001$). However, the short term DAPT showed a significantly lower risk than long term DAPT with major bleeding (OR: 0.51; 95% CI: 0.41-0.64; $p < 0.00001$). Finally, there was no difference for all cause mortality (OR: 0.93; 95% CI: 0.82-1.05; $p = 0.22$).

CONCLUSIONS In conclusion, long term DAPT reduced the risk of stent thrombosis or myocardial infarction and increased in the risk of major bleeding. All cause mortality was marginally higher with long term DAPT without reaching statistical significance. The duration of DAPT should be individualized and delegated to the trade-off between ischemic and bleeding complications.

GW26-e1041

Comparison of two-year outcomes of repeated second-generation Drug-eluting stents implantation for focal type versus non-focal type in-stent restenosis

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OBJECTIVES Second-generation Drug-eluting stents (DES) has been widely used to treat DES in-stent restenosis (ISR) which remains a clinical challenge. Knowledge regarding the outcomes of repeated second-generation DES implantation for focal versus non-focal type ISR is still missing. The aim of this study was to compare the outcomes of repeated second-generation Drug-eluting stent (DES) implantation for focal-type in-stent restenosis (ISR) versus non-focal-type ISR.

METHODS In current study, 254 patients with DES-ISR were divided into focal or non-focal groups by their ISR angiographic types. The types of restenosis were classified into focal type (< 10 mm in length) and non-focal type which includes diffuse (restenosis > 10 mm within the stent), proliferative (restenosis > 10 mm in length extending outside the stent) and occlusive. Primary endpoint of the study was the occurrence of major adverse cardiac events (MACEs) over a 2-year follow-up period. MACEs were defined as cardiac death, myocardial infarction and target lesion revascularization (TLR).

RESULTS Of the 254 consecutive patients, 87 were defined as focal type and 167 as non-focal type restenosis. The mean age of the population studied was 59.67 ± 10.56 years with 79.1% patients were male. There were no significant differences in coronary risk factors between the two groups. Non-focal type group showed significantly greater incidence of MACEs than focal type group (38.3% vs. 24.1%; $P = 0.03$). Among which, TLR occurrence was more pronounced (32.3% vs. 18.4%; $P = 0.02$). Three patients of the non-focal group and two patients of the focal group died. Seven patients of the non-focal group and three of the focal group had myocardial infarction. However this group showed higher incidence of type B2/C lesions (69.5% vs. 41.4%; $P < 0.01$) with longer lesion length (25.46 ± 3.38 vs. 8.13 ± 2.21 ; $P < 0.01$) and received significantly more and longer re-implanted stents than focal type group (1.73 ± 0.91 vs. 1.52 ± 0.89 ; $p < 0.05$; 28.59 ± 11.246 vs. 19.47 ± 7.094 , $p < 0.01$, respectively). The Kaplan-Meier curves showed focal group had significantly longer MACE free survival than non-focal group. Cox regression analysis indicated non-focal type ISR was an independent predictors of MACEs (odds ratio 2.134, 95% confidence interval 1.173-3.884; $P = 0.014$) after adjusting all significant variables.

CONCLUSIONS In current study, second-generation DES is more effective in the treatment of focal type DES-ISR than non-focal type ISR in terms of MACEs occurrence. Non-focal type ISR is an independent predictor of MACEs after treatment of DES-ISR with second-generation DES.

GW26-e2280

Application of rotational atherectomy on heavily calcified unprotected left main disease

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OBJECTIVES Objective To observe the efficacy and safety of percutaneous coronary intervention (PCI) with rotational atherectomy for highly calcified unprotected left main coronary artery (ULMCA) disease.

METHODS Methods Twenty one patients with severely calcified ULMCA stenosis who were not eligible for coronary artery bypass grafting were enrolled between July 2012 and October 2014. Procedural success and major adverse cardiovascular events (MACE)

including death, nonfatal myocardial infarction and target lesion revascularization (TLR) were evaluated during long-term follow-up.

RESULTS Results Twenty one patients (15 males ;mean age, 69 ± 7 years;) with ULM stenosis were treated with RA. Of these, 61.9 % and 71.4% patients had diabetes and hypertension. The mean Euro SCORE and SYNTAX score was 5.4 and 37.2, respectively. The mean number of treated vessels was 2.56 ± 0.91 . Intra-aortic balloon pump was used in one cases. All 21 patients went through the operation successfully. The major events registered after the procedure included one case of myocardial infarction, and six minor and two major case of bleeding at the puncture point. After a median of 13.9 (IQR 6.8-23.4) months of follow-up, 1 cardiac deaths were recorded. Survival free of cardiac death was $82.3 \pm 9\%$ and target vessel revascularization $12.1 \pm 6\%$ at one year.

CONCLUSIONS Conclusion Rotational atherectomy followed by stent implantation, when applied to heavily calcified lesions, appeared to be a safe and effective strategy for the treatment of ULMCA disease.

GW26-e3951

Clinical analysis of coronary artery anomalies and percutaneous transluminal coronary angioplasty

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OBJECTIVES To investigate the type and the incidence of malformation of coronary artery in coronary angiography of adult population, as well as the importance of the correct choice of guiding catheter in percutaneous coronary angioplasty.

METHODS A total number of 14000 cases of coronary angiography from March 2003 to October 2014 were included in, the patients who were detected with coronary artery malformation. were analyzed retrospectively. All the cases were classified by the anatomical characteristics of the coronary artery malformation, and the guiding catheter we used in the operation were statistically analyzed meanwhile.

RESULTS 214 cases were detected with coronary angiography in all the 14000 patients who were checked with coronary angiography, thus the incidence rate is 1.53%;104 cases who were diagnosed with coronary atherosclerotic heart disease and went through the PCI operation were analyzed respectively, the results include:1 case of death, 1 case of complication, 2 cases failed, 100 cases of success.

CONCLUSIONS Coronary angiography is effective in detecting coronary artery malformation screening method, according to guiding catheter can significantly increase the success rate of PCI coronary artery in different types of abnormal selection.

GW26-e4663

The gender difference in short and long-term outcomes for coronary rotational atherectomy, a single-center retrospective analysis

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OBJECTIVES Rotational atherectomy facilitates percutaneous coronary intervention for complex lesions with severe calcification, even in the era of drug eluted stent. However, the female patients were considered with higher incidence of complications and worse outcomes. The study was to observe the gender difference in efficacy and safety for coronary rotational atherectomy in patients with severe stenosis and heavy calcific lesions.

METHODS Consecutive cases underwent rotational atherectomy from January 1, 2010 to December 31, 2014 at a single center (Fuwai Hospital) were reviewed retrospectively. Clinical and coronary angiographic data were collected. Long-term outcomes were obtained by outpatient clinical follow-up or telephone interview.

RESULTS Total 283 cases (192 male 67.84%, 91 female 32.16%) were enrolled for evaluation. The average age was 66.77 ± 8.63 and female had a higher age than male patients. Total procedural success rate was 95.8%, and despite the higher incidence of coronary dissection (8.80% vs. 3.10%, $p = 0.043$), female had comparable severe complications, including no-reflow, perforation or burr entrapment. However, compared with male patients, female had higher incidence of in-