Objectives To compare the clinical outcomes of CABG and PCI with drug-eluting stent (DES) among patients with 2-vessel or 3-vessel coronary artery disease and CKD.
Methods Between January 2005 and June 2006, patients undergoing CABG or PCI with DES for treatment of 2-vessel or 3-vessel coronary disease were evaluated for renal function by eGFR calculated using modified MDRD equation. Patients undergoing incomplete revascularisation with PCI were excluded. CKD was defined as eGFR<60 ml/min. all the participants were followed up for 2 yrs. The primary end point of follow-up was the composite of all-cause death, non-fatal myocardial infarction (MI), or cerebrovascular events (CVE). The second end point was repeat revascularisation.
Results After the exclusion of patients undergoing incomplete revascularisation with PCI, 409 patients received complete revascularisation for treatment with 2-vessel disease and 415 with 3-vessel disease were evaluated. In the 2-vessel population, the incidence of primary end point and second end point were both very similar in patients receiving DES and CABG (primary end point: 9.3% vs 8.2%, p=0.753; second end point: 6.1% vs 3.1%, p=0.253). In the 3-vessel population, there was also no significant difference in the frequency of primary end point (11.4% vs 10.5%, p=0.774) between DES (n=167) and CABG groups (n=248). However, patients receiving DES still experienced significantly higher rate of repeat revascularisation as compared with patients who underwent CABG during 2-year follow-up (10.2% vs 4.4%, p=0.022). Multivariate Cox regression analysis of long-term outcome showed that the choice of revascularisation strategy were not an independent predictor of repeat revascularization in patients with 2-vessel disease (HR 1.52, 95% CI 0.53 to 3.98, p=0.387). However, PCI with DES was independently associated with higher risk of repeat revascularisation in patients with 3-vessel disease compared with CABG (HR 2.32, 95% CI 1.57 to 7.33, p=0.024).
Conclusion Compared with CABG, PCI with drug-eluting stent showed similar incidence of death, MI or cerebrovascular events in patients with multivessel disease and CKD, but is associated with increased repeat revascularisation in 3-vessel population, even after complete revascularisation.

e0504 CHRONIC KIDNEY DISEASE AND THE RISK OF STENT THROMBOSIS AFTER PERCUTANEOUS CORONARY INTERVENTION WITH DRUG-ELUTING STENTS

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Background Chronic kidney disease (CKD) has been demonstrated to be associated with adverse clinical outcomes for patients with coronary heart disease. However, data on relation of CKD and stent thrombosis after drug-eluting stent (DES) implantation is limited.
Objectives This study was designed to examine whether CKD is associated with higher incidence of stent thrombosis after elective coronary drug-eluting stent (DES) implantation compared with patients with normal renal function.
Methods We consecutively enrolled 2972 patients undergoing elective percutaneous coronary intervention (PCI) with DES. Demographic and clinical data were collected preoperatively. CKD was defined as estimated glomerular filtration rate (eGFR)<60 ml/min, calculated using the modified MDRD equation. The primary outcome was 1-year definite or probable stent thrombosis.
Results Five hundred and ninety four participants (19%) had CKD before procedure. The incidence of 1-year definite or probable stent thrombosis was significantly higher in CKD patients compared with patients with normal renal function (1.7% vs 0.5%, p=0.001). After adjustment for multiple clinical and biochemical covariates, CKD was an independent predictor of 1-year definite or probable stent thrombosis (HR 3.26, 95% CI 1.74 to 8.37, p=0.009).
Conclusion CKD is significantly associated with increased incidence of 1-year definite or probable stent thrombosis in patients undergoing PCI with DES.

e0505 COMPARISON OF THE CLINICAL APPLICATION BETWEEN HOME-MADE FIREBIRD2TM DRUG-ELUTING STENT AND IMPORTED ENDEAVOR-SPRINT DRUG-ELUTING STENT

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Background The research and development of drug-eluting stents are mainly concentrates in countries of Europe and America presently, but it is encouraging that the home-made drug-eluting stents are invented and recommended constantly in recent years. For example, Firebird sirolimus drug-eluting stent has been got a widespread application in china today, and its safety and effectiveness are generally acknowledged. Firebird2 sirolimus drug-eluting Co-based alloy supporting system is the second generation DES which is researched and developmented independently by ShangHai MicroPort medical instrument Corporation. It had got the registered certificate in January 15, 2008. It is a new generation drug-eluting stent that bases on the cobalt-based alloy platform, completely new stent structures, a better biological compatibility, and two-layer SBS polymer coating sirolimus drug-eluting stent, which have higher safty and effectiveness. This study was made in the base of Clinical application registration, making a comparison with that of the imported ENDEAVOR-Sprint drug-eluting stent, and makes a further observation on its safety and effectiveness.
Objectives To make a comparison on the safty and effectiveness of home-made Firebird2 sirolimus drug-eluting Co-based alloy stent with that of the imported ENDEAVOR-Sprint drug-eluting stent.
Methods 100 Coronary artery disease cases that Accept interventional therapy were divided into Firebird group (50 cases) and Endeavor group (50 cases) Randomly, the curative effect was compared between two groups.
Results The average ages, sex ratio, hypertension, diabetes mellitus, and myocardial infarction history in two groups have no statistical differentiation. One-vessel, two-vessel and three vessel lesion, bifurcation lesions, chronic total occlusion, and left main lesions in two groups have no statistical differentiation (p>0.05). The average Vascular diameter and target Lesion length in two groups have no statistical differentiation (p>0.05). The operation success rate were 100% in both groups. No thrombosis event happened in Firebird group, one subacute thrombosis event happened in Endeavor group, which a revascularisation was needed. 28 cases in Firebird group were accepted reexaminnation of the coronary angiography (CAG) and one got restenosis, and 2 got restenosis in 19 cases which accepted reexaminnation of CAG in Endeavor group, there was no statistical differentiation between two groups (p>0.05).
Conclusions We can obtain a favourable safty and satisfying near and medium-term curative effects from the implantation of home-made Firebird2 sirolimus drug-eluting Co-based alloy stents in CHD cases, and it has no statistical differentiation when compared with that of the imported ENDEAVOR-Sprint drug-eluting stent.

e0506 APPLICATION OF OVERLAPPED SIROLIMUS-ELUTING STENTS IN TREATMENT OF LONG CORONARY ARTERIES LESION

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Objective To evaluate the clinical efficacy of overlapped Excel and Cypher stents in treatment for long coronary arteries lesion.