administered was 140.93±52.8 mg. Anticoagulation was assessed prior and during the PCI using the activated clotting time (ACT) as a PD parameter. Serial blood samples for bivalirudin PK were collected at baseline (pre-bolus), 5 min (post-bolus), end of infusion, 10, 30 and 120 min post-infusion and analyzed by a validated LC/MS/MS method (Frontage Labs, Shanghai). Plasma concentrations versus time data were calculated by noncompartmental analysis using Phoenix WinNonlin Version 6.3 (Pharsight Corp., Sunnyvale, CA).

**Results:** Steady levels of bivalirudin were maintained during the infusion and rapidly eliminated after the end of infusion with a half-life of 32 min. The mean±SD values of \(C_{\text{max}}, T_{\text{max}}, \text{AUC}_{\text{last}}, \text{CL}, \text{and} \ V_d \) were 630.3±1247 ng/mL, 0.51±0.57 h, 6034.47±3554 ng/mL, 0.53±0.19 h (32 min), 25.68±13.78 L, 18.3±8.7 L respectively. The mean±SD ACTs were 171.7±31 sec at baseline and 428.8±1135 sec at 5 min after bivalirudin administration (P<0.0001).

**Conclusions:** In conclusion, the PK of bivalirudin was well characterized in Chinese patients with a similar profile to their Western counterparts (almost identical half-life of 32 min in Chinese vs. 25 to 29 min in Caucasians). Rapid onset of effect was observed with a significant increase in the ACT within 5 minutes of bivalirudin administration. In summary, PK/HD profile of bivalirudin is predictable and consistent across populations allowing extrapolation of clinical data.

GW25-e2318

**Influence of PGE1 on Contrast Media-Induced Renal Dysfunction in Coronary Heart Disease combined with diabetic patients undergoing Coronary Artery Intervention Therapy**

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**Objectives:** To study the effect of prostaglandin E1 on contrast media-induced renal dysfunction in Coronary Heart Disease combined with diabetic patients undergoing Coronary Artery Intervention Therapy.

**Methods:** 120 cases of Coronary Heart Disease combined with diabetic patients were included in the First Affiliated Hospital of Kunming Medical University from March 2013 to March 2014 as research subjects, which had the coronary angiography or percutaneous coronary artery stent implantation, coronary angiography showed that at least one vessel stenosis in 50% and above. The patients were randomly divided into group A (n=60), group B (n=60). Group A: normal control group; group B: routine hydration; group B: based on the routine hydration and received PGE1 (20ug) 30mins before operation, 8h,16h and 24h after operation,40ml saline diluted intravenous continuous infusion with 20mg/kg/min. All patients were received PGE1 (20ug) 30mins before operation, 8h,16h and 24h after operation. Evaluate glomerular filtration rate (eGFR) was calculated according to the modified MDRD of Chinese population. The incidence of CIN was analyzed.

**Results:** The baseline data and procedure features were not significantly different statistically among the three groups (P>0.05). There was no significant difference in BUN compared among and within the three groups (P>0.05). In group A after occlusion 1h, 2h, 4h, 8h, Scr CysC, β2-MG were higher compared to baseline (P<0.05). In group B after operation 12h, 24h and 48h, Scr, Cys-C, and β2-MG were higher compared to baseline (P<0.05), but was lower than group A after operation 12h and 24h. In group B, eGFR was higher than group A after operation 12h and 24h (P<0.05).

**Conclusions:** (1) During periprocedure period, contrast media can induce renal dysfunction in Coronary Heart Disease combined with diabetic patients. (2) Coronary artery interventional therapy in Coronary Heart Disease combined with diabetic patients with periprocedure period and pretreatment with prostaglandin E1 can reduce acute renal function damage by contrast medium, improve glomerular filtration rate, and prevent contrast-induced nephropathy. (3) Independent risk factors for CIN in patients with diabetes mellitus. (4) The hydration combined with prostaglandin E1 was better than the hydration alone that can effectively prevent the occurrence of CIN in Coronary Heart Disease combined with diabetic patients.

GW25-e2326

**Cystatin C combined with creatinine seems to be a better early predictor of CI-AKI in patients undergoing PCI**

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**Objectives:** A wide range of contrast-induced acute kidney injury (CI-AKI) rates occurs after intervention between 3% and 30%, depending on the definition. Recent studies demonstrated that serum cystatin C (CysC) strengthened the association between the eGFR and the risk of death and end-stage renal disease. In this study, we investigated the prognostic impact of CyC alone or along with Scr on patients undergoing PCI, and tried to find a best cutoff for CyC for CI-AKI detection.

**Methods:** We measured CyC together with sCr in 580 consecutive patients undergoing coronary angiography with or without percutaneous coronary intervention (PCI) from July 2013 to February 2014 in our cardiovascular center. CyC and sCr were assessed at baseline and within 24 to 48 hours after contrast media exposure. Major adverse coronary events (including all-cause mortality, myocardial infarction, and cardiac revascularization) of 266 patients undergoing PCI were assessed during a mean follow-up of 3.5 months.

**Results:** In 266 patients undergoing PCI, contrast-induced acute kidney injury (defined as a sCr increase 25%) occurred in 19 patients (7.14%) within 24 to 48 hours after contrast media exposure. A CyC increase concentration 10%, 15%, 20% and 25% within 24 to 48 hours after contrast media exposure was detected in 49 patients (18.42%), 35 patients (13.16%), 24 patients (9.02%) and 16 patients (6.02%), respectively. By logistic regression analysis, the independent predictor of major adverse events was CyC after contrast media exposure (odds ratio: 2.49; 95% confidence interval, 1.21–7.7; P=0.01). However, CyC level did not increase in patients with preserved renal function (eGFR > 60 mL/min/1.73 m²) but also in patients with normal renal function (eGFR ≤60 mL/min/1.73 m²) when defined as present cutoff. However, CyC-AKI could be only detected in patients with preserved renal function when it was defined as increase of sCr 25% within 24-48 hours after contrast medium exposure. Preprocedural eGFR was 106.1±30.7 mL/min/1.73 m² in patients with CI-AKI defined as present cutoff and was 129.5±31.2 mL/min/1.73 m² in patients with CI-AKI defined as sCr 25% increasing (P<0.05). Postprocedural eGFR was 88.8±27.1 mL/min/1.73 m² in patients with CI-AKI defined as present cutoff and was 86.6±21.1 mL/min/1.73 m² in patients with CI-AKI defined as sCr 25% increasing (P<0.05). The comparison between preprocedural and postprocedural eGFR showed that the decrease of renal function was 13.7 % in patients with CI-AKI defined as present cutoff and 31.1% in patients with CI-AKI defined as sCr 25% increasing (P<0.05).

**Conclusions:** In patients underwent CA or PCI, increase in CyC 10% or sCr 25% within 24 to 48 hours after contrast media exposure seems to be a reliable marker for the early diagnosis of CI-AKI. The higher sensitivity of the percent changes applies mainly to subjects with normal SC but has moderate predictive value in patients with moderate or severe renal damage. But increase of sCr is more likely to be seen in patients with normal or moderate renal damage. Our data also suggest that Cystatin C combined with creatinine in patients underwent PCI is superior to 25% increase in sCr at identifying patients at greater risk for adverse cardiac events.

GW25-e2457

**Immediate bail-out Stenting for the Management of Iatrogenic Aortocoronary Dissection: Initial Experiences**

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**Objectives:** Iatrogenic aortocoronary dissection is a rare but potentially disastrous complication of percutaneous coronary intervention (PCI). However, there is a paucity of data on the optimal initial management of this complication. The aim of this study was to depict the characteristics and causes of iatrogenic aortocoronary dissection and to elucidate the importance of a new strategy based on immediate bail-out stenting.

**Methods:** We collected 18 cases of iatrogenic aortocoronary dissection during PCI in patients with or without adverse events (including all-cause mortality, myocardial infarction, and adverse events) due to Iatrogenic aortocoronary dissection. Among them, 13 patients followed the “4S” law based on immediate bail-out stenting performed within 15 min was the initial strategy in most cases. The characteristics, treatment, and in-hospital outcomes of the patients were evaluated. According to the NCDR classification, 15 patients (83.3%) had extensive dissection (Type D to F) with acute closure (Type F) in 4 patients. In 3 patients (16.7%), the dissections were diagnosed during coronary angiography, and in 15 patients (83.3%), during PCI. From the 18 patients, 16 patients (88.9%) underwent bail-out stent implantation, with technical success in 14 patients. Among them, 13 patients followed the “4S” law, with 7.7±3.2 min from onset of dissection to completion of bail-out stenting, and the procedural success rate was 100% without any deaths. Two patients died due to time delay (stenting >15min) and the third one died due to hemodynamic collapse because the guidewire failed to cross the true lumen.

**Conclusions:** This study indicated that the “4S” law based on immediate bail-out stenting is a feasible and efficient strategy for the management of iatrogenic aortocoronary dissection.